EXXON VALDEZ OIL SPILL

HEARING

BEFORE THE

SUBCOMMITTEE ON COAST GUARD AND NAVIGATION

OF THE

COMMITTEE ON MERCHANT MARINE AND FISHERIES HOUSE OF REPRESENTATIVES

ONE HUNDRED FIRST CONGRESS

FIRST SESSION

ON

TOPICS CONCERNING THE EXXON VALDEZ OIL SPILL INTO THE PRINCE WILLIAM SOUND OF ALASKA

APRIL 6, 1989

Serial No. 101-9

Printed for the use of the
Committee on Merchant Marine and Fisheries

U.S. GOVERNMENT PRINTING OFFICE

99-074 • WASHINGTON : 1989

For sale by the Superintendent of Documents, Congressional Sales Office
U.S. Government Printing Office, Washington, DC 20402

H561-45.

COMMITTEE ON MERCHANT MARINE AND FISHERIES

WALTER B. JONES, North Carolina, *Chairman*

GERRY E. STUDDS, Massachusetts
CARROLL HUBBARD, JR., Kentucky
WILLIAM J. HUGHES, New Jersey
EARL HUTTO, Florida
BILLY TAUZIN, Louisiana
THOMAS M. FOGLIETTA, Pennsylvania
DENNIS M. HERTEL, Michigan
ROY DYSON, Maryland
WILLIAM O. LIPINSKI, Illinois
ROBERT A. BORSKI, Pennsylvania
THOMAS R. CARPER, Delaware
DOUGLAS H. BOSCO, California
ROBIN TALLON, South Carolina
SOLOMON P. ORTIZ, Texas
CHARLES E. BENNETT, Florida
THOMAS J. MANTON, New York
OWEN B. PICKETT, Virginia
JOSEPH E. BRENNAN, Maine
GEORGE J. HOCHBRUECKNER, New York
BOB CLEMENT, Tennessee
STEPHEN J. SOLARZ, New York
FRANK PALLONE, JR., New Jersey
GREG LAUGHLIN, Texas
NITA M. LOWEY, New York
JOLENE UNSOELD, Washington

ROBERT W. DAVIS, Michigan
DON YOUNG, Alaska
NORMAN F. LENT, New York
NORMAN D. SHUMWAY, California
JACK FIELDS, Texas
CLAUDINE SCHNEIDER, Rhode Island
HERBERT H. BATEMAN, Virginia
JIM SAXTON, New Jersey
JOHN R. MILLER, Washington
HELEN DELICH BENTLEY, Maryland
HOWARD COBLE, North Carolina
CURT WELDON, Pennsylvania
PATRICIA SAIKI, Hawaii
WALLY HERGER, California
JIM BUNNING, Kentucky
JAMES M. INHOFE, Oklahoma
PORTER J. GOSS, Florida

EDMUND B. WELCH, *Chief Counsel*
BARBARA L. CAVAS, *Chief Clerk*
GEORGE D. PENCE, *Minority Staff Director*
DUNCAN C. SMITH III, *Minority Chief Counsel*

SUBCOMMITTEE ON COAST GUARD AND NAVIGATION

BILLY TAUZIN, Louisiana, *Chairman*

EARL HUTTO, Florida
BOB CLEMENT, Tennessee
GREG LAUGHLIN, Texas
NITA M. LOWEY, New York
GERRY E. STUDDS, Massachusetts
WILLIAM J. HUGHES, New Jersey
THOMAS R. CARPER, Delaware
SOLOMON P. ORTIZ, Texas
CHARLES E. BENNETT, Florida
THOMAS J. MANTON, New York
OWEN B. PICKETT, Virginia
JOSEPH E. BRENNAN, Maine
GEORGE J. HOCHBRUECKNER, New York

ROBERT W. DAVIS, Michigan
DON YOUNG, Alaska
NORMAN D. SHUMWAY, California
HERBERT H. BATEMAN, Virginia
HELEN DELICH BENTLEY, Maryland
HOWARD COBLE, North Carolina
JIM BUNNING, Kentucky
JAMES M. INHOFE, Oklahoma
PORTER J. GOSS, Florida

ROY WILLIS, *Staff Director*
CORNEL MARTIN, *Professional Staff*
SHERRY STEELE, *Minority Professional Staff*

CONTENTS

	Page
Hearing held April 6, 1989	1
Statement of:	
Bentley, Hon. Helen Delich, a U.S. Representative from Maryland	3
Brennan, Hon. Joseph E., a U.S. Representative from Maine	17
Burton, Kent, Assistant Secretary of Commerce, and Deputy Administrator, NOAA	97
Prepared statement	151
Carper, Hon. Thomas R., a U.S. Representative from Delaware	18
Clement, Hon. Bob, a U.S. Representative from Tennessee	11
Coble, Hon. Howard, a U.S. Representative from North Carolina	12
Curtis, Clifton E., executive director, The Oceanic Society (prepared statement)	200
Davis, Hon. Robert W., a U.S. Representative from Michigan	2
Devens, John, Mayor, City of Valdez, Valdez, Alaska	48
Herger, Hon. Wally, a U.S. Representative from California	14
Hughes, Hon. William J., a U.S. Representative from New Jersey	8
Prepared statement	8
Inhofe, Hon. James M., a U.S. Representative from Oklahoma	17
Isleib, Pete, Prince William Sound Aquaculture Association	108
Prepared statement	196
Jones, Hon. Walter B., a U.S. Representative from North Carolina, and Chairman, Committee on Merchant Marine and Fisheries	1
Laughlin, Hon. Greg, a U.S. Representative from Texas	12
Lent, Hon. Norman F., a U.S. Representative from New York	13
Lowey, Hon. Nita M., a U.S. Representative from New York	14
Makris, James L., director, Chemical Preparedness and Prevention Office, EPA	100
Prepared statement	220
Manton, Hon. Thomas J., a U.S. Representative from New York	16
McAlpine, Steve McAlpine, Lieutenant Governor, State of Alaska	45
Miller, Hon. John R., a U.S. Representative from Washington	15
Moore, Donald L., City Manager, Cordova, Alaska (prepared statement)	217
O'Connell, Quinn, Trans-Alaskan Pipeline Liability Fund	108
Olsen, David, Acting Assistant Director for Wildlife Resources, U.S. Fish and Wildlife Service	101
Prepared statement	158
Pickett, Hon. Owen B., a U.S. Representative from Virginia	18
Rawl, chairman of the board, Exxon Corporation	67
Prepared statement	147
Schneider, Hon. Claudine, a U.S. Representative from Rhode Island	6
Shumway, Hon. Norman D., a U.S. Representative from California	4
Skinner, Samuel K., Secretary, U.S. Department of Transportation	50
Stone, Ron, director, Government Relations, National Marine Manufacturers Association (prepared statement)	215
Tauzin, Hon. Billy, a U.S. Representative from Louisiana, and Chairman, Subcommittee on Coast Guard and Navigation	5
Weldon, Hon. Curt, a U.S. Representative from Pennsylvania	15
Yost, Admiral Paul A., Jr., Commandant, U.S. Coast Guard; accompanied by Vice Commandant Clyde Lusk; Captain Ken Thompson, chief, Programs Division; Captain Dave Spade, chief, Budget Division	19
Prepared statement	142
Young, Hon. Don, a U.S. Representative from Alaska	9
Prepared statement	10

Page

Additional material supplied:
Chronology of Exxon's Response to the *Exxon Valdez* Incident 232
Facts on Alaska Oil Spill, prepared by Hon. Don Young 138
Federal Register, 43 CFR Part 29, excerpt, "Final Rule on Trans-Alaska Pipeline Liability Fund" 187
Liability Section of Public Law 93-153 193
Subcommittee on Coast Guard and Navigation: Memorandum of 5 April 1989, to Members of the Subcommittee 120
Trans-Alaska Pipeline Liability Fund, Procedures for Settling Claims 162
Communications submitted:
Rawl, L.G., (Exxon Corporation): Letter of 12 May 1989, to Hon. Dennis M. Hertel 219
Skinner, Samuel K., and William P. Reilly, (Department of Transportation): Letter of 4 April 1989, to Jim Makris, National Response Team, EPA 229
Stevens, W.D., (Exxon Company, U.S.A.): Letter of 12 May 1989, to Hon. Billy Tauzin 231

EXXON VALDEZ OIL SPILL IN PRINCE WILLIAM SOUND, ALASKA

THURSDAY, APRIL 6, 1989

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON COAST GUARD AND NAVIGATION,
COMMITTEE ON MERCHANT MARINE AND FISHERIES,
Washington, DC.

The Subcommittee met, pursuant to notice, at 9:10 a.m. in Room 1334, Longworth House Office Building, Hon. Billy Tauzin (Chairman of the Subcommittee) presiding.

Members present: Representatives Tauzin, Studds, Hughes, Hutto, Carper, Ortiz, Bennett, Manton, Pickett, Brennan, Hochbrueckner, Clement, Laughlin, Lowey, Jones, Pallone, Bosco, Dyson, Solarz, Tallon, Unsoeld, Hertel, Young, Bateman, Bentley, Coble, Inhofe, Goss, Miller, Herger, Lent, Schneider, and Saxton.

Staff present: Roy Willis, Cornel Martin, Sue Stilley, Bill Wright, Ed Welch, Barbara Cavas, Kurt Oxley, Lee Crockett, George Pence, Rebecca Dye, Sherry Steele, Sue Waldron, Cyndy Wilkinson, Greg Lambert, and Gwen Lockhart.

Mr. TAUZIN. The Subcommittee will please come to order.

Before we hear from witnesses, I will say a few words about our procedures for this hearing.

We have a very long list of witnesses, and it is the intention of the Chair to limit his own opening statement in order that we might hear our witnesses, and I would encourage many of the Members to limit, or to contain their desire to speak at length on this disaster, so we do have a chance to hear our witnesses.

Only Subcommittee Members will be recognized for opening statements, although we have invited other Full Committee Members who wished to participate, and they will be allowed to participate in the questioning part of our hearing today.

The five-minute rule for questioning will be strictly adhered to. Depending upon the time available, as I pointed out, we will recognize additional Members from the Full Committee. I am authorized to say that the Full Committee Chairman, Chairman Jones, will be here later, and he has an opening statement which, without objection, will be included as a part of the record.

[The statement of Mr. Jones follows:]

STATEMENT OF HON. WALTER B. JONES, A U.S. REPRESENTATIVE FROM NORTH CAROLINA, AND CHAIRMAN, COMMITTEE ON MERCHANT MARINE AND FISHERIES

The unthinkable has happened, a major oil spill off our shores. The question we must all ask ourselves is "Were we fully prepared for this eventuality?" Regretfully, I am afraid we must answer "No."

Since 1976, the United States Congress has approached the need for comprehensive oil spill legislation with varying degrees of interest and success. We in this Committee can be proud of our staunch support for such legislation. A long held belief has been that it would take a disaster to get others to realize the necessity of such legislation. Well, the disaster has occurred and while some would be tempted to gloat, I feel only sadness. This spill once again exposes the uncertainties in teh crazy-quilt system of laws and plans currently in place to deal with disasters such as the Exxon accident. I no longer fear sounding like Chicken Little with idle threats that the sky is falling; instead, for the people and wildlife of Alaska, the sky has fallen and will all suffer as a result of our unpreparedness.

Mr. TAUZIN. And we will also include as part of the record statements submitted by Mr. Davis, Mrs. Bentley, and Mr. Shumway.

[The statements of Mr. Davis, Mrs. Bentley and Mr. Shumway follow:]

STATEMENT OF HON. ROBERT W. DAVIS, A U.S. REPRESENTATIVE FROM MICHIGAN

Mr. Chairman, I welcome the witnesses who appear here today to report to us on the progress of the cleanup efforts surrounding the *Exxon Valdez* oil spill. We are all concerned about the damage to the Alaskan economy and environment caused by the *Exxon Valdez* oil spill, and hope that the testimony we receive will provide us with insights concerning preventative measures which we should consider to keep a disaster of this magnitude from happening again.

Our greatest concern is for the lasting effects of the oil spill on the Alaskan environment and natural resources and for those individuals who depend on those resources for their livelihoods. The victims of this accident should be promptly and adequately compensated for their losses resulting from the oil spill. I understand that Exxon has offered to compensate the Alaskan fishermen and others suffering oil spill damages as well as support the oil cleanup effort. If this incident involved a company without the resources to make an offer of this type, the existing compensation schemes may prove to be inadequate. Although it is difficult to assess the magnitude of the damage at this early date, it is clear that this spill has already caused legitimate damage to many Alaskans.

I want to point out that this Committee, under the leadership of our distinguished Chairman Walter Jones, did not wait for this oil spill to happen before acting to provide a system to compensate victims of oil spills. We have been actively pursuing comprehensive oil spill legislation for many Congresses, and on March 16yh of this year, H.R. 1465, which I cosponsored, was reintroduced. This bill, the Oil Pollution Liability and Compensation Act of 1989, was reported by this Committee during the last Congress as H.R. 1632. I am delighted to see renewed interest from our House and Senate colleagues on oil spill compensation legislation. I believe we have allowed different positions on certain provisions of various oil spill bills to stand in the way of reaching an agreement on a valuable piece of legislation. I hope that we won't wait for another disaster to occur before we sit down and actually produce a workable piece of legislation. I look forward to working with my House and Senate colleagues who are concerned about this issue to enact a comprehensive oil pollution compensation bill, so no United States citizen need fear losing his lifelihood as a result of an oil spill.

I agree with the Congressman from Alaska, Don Young, that we must continue to carefully monitor this situation to assess what needs to be done to prevent a reoccurrence. Barely two weeks have passed since the incident occurred, and neither the National Transportation Safety Board or the Coast Guard has had time to complete their investigations. I do not believe that we should take a "wait and see" attitude, but I do believe that we should give the Government investigators a reasonable chance to assess the situation and make recommendations to us.

I also believe that we should work to ensure the safety of future oil tanker operations, rather than take the short-sighted route of prohibiting future oil exploration. There is no question that our environment must be protected, and we must take necessary measures to secure the environment from this type of harm in the future. With the experience gained from this accident, we can succeed in making oil shipping operations safer, and also safeguard the energy independence of this country.

STATEMENT OF HON. HELEN DELICH BENTLEY, A U.S. REPRESENTATIVE FROM MARYLAND

Thank you, Mr. Chairman. And thank you, Mr. Davis for holding this hearing today on an issue that captured the attention of the entire world.

I want to thank both of you for taking the initiative of revising the agenda of today's scheduled hearing so that this Subcommittee could deliberate on a catastrophe which has devasted the delicate environment of Prince William Sound.

I join the millions of people not only throughout the United States, but throughout the world, who are mourning the tremendous losses incurred there.

Mr. Chairman, the news media has reported on the *Exxon Valdez* oil spill from every conceivable angle, bringing to light several factors which may have contributed to this disaster and its monumental consequences.

Of particular concern to me, and I am sure to my colleagues on this Subcommittee, are the reports that Captain Joseph Hazelwood was not at his post on the bridge of the *Exxon Valdez* during its transit through the Sound. For reasons that have not been totally clear, Captain Hazelwood was in his cabin, while the third mate, Gregory Cousins, who was not certified as a qualified pilot, was in command.

Also troubling to me, is the reported slow response by Exxon officials to institute immediate steps to contain the 11 million gallons of crude oil spilling unchecked from the slashed hull of the vessel.

Alaskan Governor Steve Cowper, who will appear before us today to share with us his insight on this disaster, was quoted in the media as characterizing Exxon's response as "slow and inadequate."

Mr. Chairman, this Subcommittee also needs to examine the resources available to the Coast Guard to adequately respond to and monitor oil and hazardous chemical spills.

We all know how the Coast Guard has been forced during recent years to expand its missions, while at the same time face imposed budget restraints.

Part of those budget reductions resulted in the consolidation of its Atlantic and Gulf national strike teams into one team located at Mobile, Alabama, and a reduction in the number of billets from 82 to 65.

Clearly, this incident has demonstrated that no one, in particular the oil industry, is properly equipped to adequately respond to an oil spill disaster of this magnitude.

The question this Subcommittee needs to ask is: Why not? Is this a case where the industry, and Exxon in particular, maintains minimal resources, rather than resources sufficient to handle a worse case scenario.

Well, Mr. Chairman, we are dealing with the worst case scenario in Prince William Sound.

The sensitive environment in that portion of Alaska has been dramatically altered, most likely forever. That's regrettable. It never should have happened. It must never happen again—in Alaska—in the United States,—or anywhere in the world.

However, I want to caution everyone that we must get to the root problem and develop ways of addressing that problem.

Rushing to judgment and introducing legislative initiatives—for the sake of doing something—would be wrong. Whatever this Subcommittee—this Congress—decides to do in a constructive manner to prevent future disastrous oil spills from happening, must be well thought out and made with a great degree of reasoning.

There are those, I am sure, who will exploit the *Exxon Valdez* accident and call for a prohibition to energy exploration and development in environmentally sensitive areas, such as the Arctic National Wildlife Refuge. That, too, would be wrong.

We must resist any exploitation of this incident to thwart future development of our energy resources.

The United States is becoming more and more dependent on foreign sources for its energy needs. From a strategic perspective, this is dangerous. We have all lived through that experience in the early 1970s, and we must strive to prevent a repetition of that experience, as well.

Overall, the oil industry, admittedly with prodding and encouragement from environmental groups, has an excellent record in Prudhoe Bay, Alaska.

This unfortunate accident, which is the apparent result of irresponsible human behavior on the part of one person and the inexperience of another, will, for the time being, overshadow that good record.

Mr. Chairman, I look forward to hearing the testimony of our panelist today, and I want to pledge to you and to all Americans that I will support any constructive proposals that will, hopefully, prevent a reoccurrence of the Prince William Sound disaster.

Thank you, Mr. Chairman.

STATEMENT OF HON. NORMAN D. SHUMWAY, A U.S. REPRESENTATIVE FROM CALIFORNIA

Mr. Chairman, this hearing is certainly timely. Unfortunately, we already know that the cause of the VALDEZ accident was avoidable and the result of gross negligence on the part of the master. In response, I believe this Committee needs to re-examine the regulatory policies for drug and alcohol testing for those responsible for navigating these tankers.

The Committee also needs to closely review the contingency plans now in place to clean up these potential accidents as quickly as possible. It's my understanding that these contingency plans are outdated nd that they were not planned for vessels anywhere near the size of the *Exxon Valdez*. Clearly the government and the industry need to be better prepared.

Mr. Chairman, we also need to make every effort to assess the environmental damage and ensure that restoration efforts move forward expeditiously. And, I'm confident under your leadership, as evidenced by today's hearing, we will afford it such attention.

However, I'm also concerned about the long-term policy affects this spill may have on our energy security. Years from now, long after the environment has been restored and the fisheries replenished, the effect of this spill on our Nation's energy security and economy could be devastating if the Congress and the Nation learn the wrong lesson.

The easy, quick, and appealing response to the *Exxon Valdez* disaster is to blame the oil company and argue that this spill proves oil operations are unsafe, and that ANWR and offshore OCS areas should remain closed to oil and gas development.

Mr. Chairman, if this knee-jerk response is what we derive from this unfortunate spill, then I am afraid that we are actually setting ourselves up for more tanker disasters like this one down the road.

There is simply no denying the fact that this Nation is the largest energy consumer in the world. We need oil, coal, and other sources of energy to live. If as a result of this tragedy we shut down potential domestic supplies of oil and gas, then we are in fact increasing our dependence on foreign oil and on tanker transportation, an energy option which the VALDEZ incident proves is much more dangerous environmentally than domestic production.

I certainly hope this Committee comes to the conclusion that the Federal Government and the oil companies need to be better equipped and prepared to both prevent and clean up these tanker accidents. There is no question that our contintency plans need to be re-examined and updated. But, just as important, I hope we realize that current oil imports represent 45 percent of our consumption, and that is dangerously high. We need a sound national energy policy which relies on secure and safe domestic production from a variety of sources—including ANWR and offshore sources—and we need to promote conservation and wise use of energy supplies in America. If we can learn these lessons from the Prince William Sound disaster and implement these policies as a result, we will have gone a long way in reducing the chance of repeating this kind of tanker spill in the future.

Mr. TAUZIN. Now last week, when the Subcommittee began planning the hearing, numerous Government witnesses, as well as representatives of Exxon, were invited to attend.

On Monday, the Senate Commerce Committee decided that it, too, would hold a hearing, and scheduled it for the same day and time as our hearing.

While we are pleased, indeed, that the Senate is interested in all oil spill issues, as a consequence of the scheduling, now, two of our key witnesses, Transportation Secretary Samuel Skinner, and Exxon Board Chairman L.G. Rawl, will be joining us following their testimony before the Senate committee.

We will indeed adjust our witness panels to accommodate those two witnesses when they arrive. In addition, Admiral Yost, who is with us today, will need to leave our hearing no later than 10:30.

One final note. The interest in this hearing among private sector organizations is enormous. No less than a dozen groups, including the merchant marine industry, the seafood industry, the environmental community, and professionals in legal and research fields have asked to participate.

Obviously at a single hearing it is not even possible to hear from all 14 agencies which make up the national response team. Nonetheless, we welcome all interested organizations and individuals to provide written testimony for the record.

Also, this Subcommittee has scheduled hearings for May on oil pollution liability reform legislation. This issue is of critical importance. We will continue our efforts to renew and improve the Nation's ability to respond to pollution resulting from oil spills.

Hopefully, with the renewed interest in the Senate, we will actually see legislative reform enacted into law this year on this subject.

Are there any questions, first, about our procedure?

[No response.]

OPENING STATEMENT OF HON. BILLY TAUZIN, A U.S. REPRESENTATIVE FROM LOUISIANA, AND CHAIRMAN, SUBCOMMITTEE ON COAST GUARD AND NAVIGATION

Mr. TAUZIN. Today we will hear from witnesses concerning the largest oil spill in our Nation's history.

Shortly after midnight on March 24th, the *Exxon Valdez* ran aground, spilling approximately 240,000 barrels of crude oil into the Prince William Sound of Alaska.

This tragic accident raises many questions about the adequacy of America's ability to first prevent, and, if necessary, respond to oil and chemical spills in U.S. waters. That should be the focus of today's hearing.

While the people of Alaska, with the help of the public and private sectors work around the clock to clean up Prince William Sound, some of the more callous have used this incident as a soap box to make points against further energy production and development in the Arctic, or in America's coastal waters.

It is clear that this incident was not an energy development or production incident. A similar tragedy in the Chesapeake Bay, the Gulf of Mexico, even Boston Harbor, would have caused as much concern and consternation, and probably environmental damage as we are seeing in Prince William Sound.

The oil spill in Prince William Sound was a transportation accident. It also has political implications, of course, in the ongoing debate around alcohol and drug abuse. The Subcommittee has a vital role in oversight of the U.S. Coast Guard, as well as legislative jurisdiction over oil spill liability laws. Therefore, our inquiry must focus on, I believe, four major areas.

First, how did this accident happen? How can we avoid further such incidents? Specifically, we need to know how adequate are the response mechanisms currently in place, and how they can be improved.

Also of critical importance, what is being done to mitigate the impacts, and what more can we do to help?

In addition, we must look closely at existing State and Federal laws in light of this incident. How should they be improved? How should they be strengthened?

And finally, we need to examine the ability of our own Coast Guard to monitor and control hazardous cargo, as well as its ability to respond to spills when they occur.

It is too easy to fault the Coast Guard for not doing a good enough job. The real question for Congress is this: Did we give them the funds and the authority they need to get the job done right?

As we have already seen in our inquiries on the Coast Guard's role in the war on drugs, too often the Coast Guard is given new or expanded missions without the resources or the personnel to achieve the topnotch standard the public and the Congress ultimately hold them to.

Before recognizing folks for opening statements, I want to commend the gentleman from Alaska who is struggling to be here today, with his own transportation problems, I understand. The gentleman from Alaska, Mr. Young. I want to thank him and express my heartfelt thanks for the extraordinary leadership he has demonstrated in the course of preparing for this hearing.

The Chairman could not ask for more help, or guidance and candor than I received from Don Young. My thanks to you, Don, and to your talented staff who are here now.

And on behalf of this side of the aisle, I want to assure you that if we can do more to help you and the people of Alaska, we are ready to do so.

It is my pleasure now to recognize other Members of our panel for opening statements.

Mr. TAUZIN. We should begin with someone from the Minority side, of rank. Who is prepared to go? Miss Schneider, are you prepared with an opening statement?

Miss SCHNEIDER. Yes.

Mr. TAUZIN. Miss Schneider, you are recognized at this time.

OPENING STATEMENT OF HON. CLAUDINE SCHNEIDER, A U.S. REPRESENTATIVE FROM RHODE ISLAND

Miss SCHNEIDER. Let me say, Mr. Chairman, that I appreciate your timeliness in calling this hearing, and let me also point out that, like you, I am anxious to learn from the witnesses here today, as to how this incident occurred, and where we go from here.

I am very distressed, in that for 20 years now, we have heard from many people warning us about the potential of such an accident. This accident, covering a 1300 square mile area, which is larger than my own State of Rhode Island, is really awesome to comprehend, and the supposed "environmental dooms-dayers" have been warning about such a catastrophe for nearly 20 years now, but the Congress and the American public has been assured by the oil industry that there was nothing to be concerned about.

I would like to share with you a quote that I think all of the Members should be sensitive to in the future when we hear such assurances.

This is a quote from a British Petroleum official back in 1971. He said: "From my own experience, and the studies of many other workers in the pollution field, I am satisfied that tanker traffic to and from Port Valdez, and the operation of an oil port there will not cause any significant damage to the marine environment or to fisheries' interests."

Well, it appears that that opinion was incorrect, and the $13 million annual herring roe fishery has already been cancelled for this year.

The salmon fishery in Prince William Sound alone is worth $125 million, and employs nearly 6000 people. Not to mention the effects on the birds and the marine mammals, and the other fish, which is also tremendous, with deaths of more than a 1000 birds and dozens of sea otters.

The two largest industries in Alaska next to oil are fisheries and tourism. Neither of these will fare very well in the aftermath of this disaster. All of this should have been prevented.

Instead of having containment equipment at the scene within five hours, as stated, it took 12 hours for the first equipment to arrive, and 35 hours before the ship was encircled with containment booms.

Chemical dispersants were to be used to break up the slick, but very few were on hand, and there was a very clear inability by Alyeska officials on how to use them.

The first test was not done for 18 hours, and they even accidentally doused a Coast Guard crew with the chemicals, as I understand it, and I will look forward to hearing more about that later.

Both Alyeska and Exxon officials failed, despite pleas from fishermen—and their own plan—to mobilize squads of private fishing boats poised to rush to the scene. There were not enough containment booms or dispersants, and much of the equipment was old and broken down.

Alyeska decided in 1981 to disband a 20-member emergency response team prepared for around-the-clock response to oil spills in Valdez Harbor and the Prince William Sound.

Well, what do we do to prevent similar incidents? Federal regulations require oil spill contingency plans, but as was already indicated here, they do not happen to be terribly realistic.

I think that California is perhaps the only State that requires the oil industry to demonstrate that their contingency plans will work, and this is something that, clearly, we must do.

This Congress should pass comprehensive oil spill legislation as introduced by Chairman Jones. It has been introduced for years now. The time for its passage has come.

I believe that we, as responsible Members of the Merchant Marine and Fisheries Committee, overall, must not rely on the assurances of the oil industry in deciding the fate of ANWR or other oil initiatives.

The last great wilderness area in the United States could be destroyed if the negligence portrayed by this incident were to be repeated there.

I look forward to the testimony of the representatives of the Coast Guard that we have here today, and other witnesses, and I

thank the Chairman and our co-Chairman for calling this very timely hearing.

Mr. TAUZIN. I thank the gentlelady for her comments.

The Chair will now recognize Mr. Hughes from New Jersey.

OPENING STATEMENT OF HON. WILLIAM J. HUGHES, A U.S. REPRESENTATIVE FROM NEW JERSEY

Mr. HUGHES. Thank you, Mr. Chairman. We have a lot of Members here today, and a lot of witnesses. I would like to put a statement in the record, if I might.

Mr. TAUZIN. Without objection, so ordered.

Mr. HUGHES. And just say very, very briefly, Mr. Chairman, it is a tragedy. It is not the first spill, obviously; it may be the largest and it will not be the last. This is my 15th year, and we have been debating comprehensive oil spill liability that entire time. It is time we moved on to finally enact an oil spill compensation bill.

I remember many years ago when we debated the whole subject of double linings in our tankers. It was decided, at that time, primarily because of economics, that we should not have double bottoms.

I would hope that the appropriate committee—this Committee certainly is not the appropriate committee—but certainly Merchant Marine and the Full Committee should be considering that issue once again.

It is my hope that we will take a serious look at the whole rapid deployment cleanup strategy. We have been concerned for years, that we did not have in place the equipment, nor did we have the manpower to clean up these spills in a timely fashion.

So, Mr. Chairman, I hope out of this tragedy will come some good, and if this Committee will move ahead with two or three issues that have been before this Committee for many years, it seems to me that some good will come out of it.

So thank you, Mr. Chairman. I look forward to the hearing this morning, and I commend you for convening this timely hearing.

[The statement of Mr. Hughes follows:]

STATEMENT OF HON. WILLIAM J. HUGHES, A U.S. REPRESENTATIVE FROM NEW JERSEY

Mr. Chairman, thank you for holding this oversight hearing today on the cleanup operation of the *Exxon Valdez* oil spill.

Within the last few years, we have witnessed oil spills in the Gulf of Mexico; in Cook Inlet, Alaska; off the coasts of Washington and Hawaii; in the Savannah River, Georgia; and in Ohio's Monongahela River.

In all of these instances, the oil spills have resulted in damage to the ecosystem, waterfowl, wildlife, and fishery resources. However, none of these accidents compare in magnitude to the some quarter of a million barrels that poured out of the *Exxon Valdez* into Prince William Sound. As you know, this area is ringed by islands and consists of subarctic habitat that supports a diverse population of birds, animals, and commercially valuable fish, including herring, salmon, king crabs, and shrimp.

We should and we will direct our attention to the apparent shortcomings of the cleanup operations—including the initial delay in responding to the spill during the first critical hours, the overall communication problems, the difficulties with assembling an emergency team, the lack of barges and equipment to contain the spill, and the problems with the chemical dispersents. But our examination of these events should focus on the potential for such an incident to occur on an even larger scale in the future.

Approximately 680 million barrels per year of oil are moved from the pipeline at Valdez onto tankers transiting Prince William Sound. As you know, this area is remote, having fairly harsh environmental conditions. Clearly, we need to reassess

the potential for future accidents and devise effective preventive measures and policies that take into account both human error and the severe climate conditions.

Additionally, we are responsible for ensuring that the contingency cleanup plans work. We need a firm commitment from the oil industry and the Coast Guard that they will be better prepared in the future with adequate spill containment, cleanup equipment, and a trained crew ready to respond immediately.

Finally, we need to establish a comprehensive oil pollution liability and compensation program that provides adequate restitution for those who are damaged by the spill. Among the other important provisions, this program would develop one large cleanup fund to replace existing smaller cleanup funds. As recent events have shown, the enactment of such legislation is vital to the protection of our rivers and welfare of our coastal areas.

Mr. TAUZIN. I thank the gentleman for his comments. Thank you very much. We will now recognize the gentleman from Alaska, Mr. Don Young.

OPENING STATEMENT OF HON. DON YOUNG, A U.S. REPRESENTATIVE FROM ALASKA

Mr. YOUNG. Thank you, Mr. Chairman. I want to join with you in welcoming the witnesses. As Mr. Hughes has said, we have a large group of witnesses and a lot of Members before us today that are very much interested in this tragic incident that happened in Alaska.

I will submit my written statement for the record, with permission of the Chairman.

Mr. TAUZIN. Without objection, so ordered.

Mr. YOUNG. My main interest, of course, is finding out what happened, and how to avoid the same type of accident in the future. We have already shut down the herring fishery at a tremendous loss to the herring fishermen of our State. We have the potential of other loss of fisheries within the State of Alaska in this area, and it is a tragedy, it could have been avoided, and it was not.

Mr. Chairman, I would suggest this is the O-ring of the State of Alaska in the industry that provides a great deal of the economic base for our State. The O-ring because we all become complacent. We had not followed through, the State nor the industry, and in the necessity of the 1973 Act, of making sure that we could deliver this oil without any tragic problems, and they have occurred.

So we must keep in mind that we have had 8,707 shipments of oil to that pipeline without any accident.

Mr. Chairman, I do not think it is correct, at this time, to cast blame on anyone, or point fingers when we all share in that blame. It is up to this Committee, and up to the industry and the State of Alaska to make sure that we expedite and learn from what has happened, and take care for those that have lost.

Mr. Chairman, I do have some suggestions—hopefully, we will be able to ask the witnesses at a later date—that there should be, again, some of those suggestions presented, and hopefully will be implemented. In fact some of those suggestions can be immediately followed, such as pilots to Hinchinbrook, which they used to do.

We ought to have a clearer authority for cleanup operations. We must have equipment on site that can handle the high-sea spills, and, most of all, Mr. Chairman, we, as the Congress, have the responsibility of making sure that this issue is not distracting from

the other issue, and that is the availability of domestic fuel to the people in the United States.

As you know, Mr. Chairman, and those from California, the price of gas—the automobile use in California has increased but the price has gone up about 60 percent in the last eight and a half days.

The rippling effect across the Nation can be devastating economically, and we have before this Congress the opportunity to improve upon this tragic accident and yet provide the necessary fuel to this Nation, because whether we like it or not we are getting our oil from tankers.

And it can be in all of your ports, be from Iran or Iraq, or it can be on American vessels. It can be done safely. It is up to us to make sure it is done so.

Thank you, Mr. Chairman, for having these meetings.

[The statement of Mr. Young follows:]

PREPARED STATEMENT OF HON. DON YOUNG, A U.S. REPRESENTATIVE FROM ALASKA

Mr. Chairman, I want to join with you in welcoming the witnesses before us today. Before we hear from them, however, I want to pass on a few thoughts of my own.

It is obvious to me, as it is to everyone who has visited Prince William Sound in the past few weeks, that we are facing a tragedy. Our herring fishery has been shut down in order to ensure that fish will be available for the future. Reports are arriving that buyers will not purchase salmon coming from Prince William Sound due to fear of oil contamination. After a year where Alaskan fishermen lost millions of salmon to high seas interception, they now see their own fishing grounds despoiled. Regardless of the long term environmental consequences, our fishing industry has been damaged.

I called it a tragedy, and it is. What would be more tragic would be to use this accident to destroy our Nation's energy security. Keep in mind that we have had 8700 shipments of oil through the pipeline over a period of 12 years, with only one major accident. Alaskan oil accounts for 25% of the Nation's oil supply. When the Port of Valdez was closed for only a few days, the world oil price climbed steadily upward. This is America's oil, and we need it.

Further, don't be convinced by the hidden agendas of the preservation movement.The problem occurred in Valdez, not on the North Slope, not in ANWR. If we shut down the pipeline, rather than making it and the tankers safer, if we don't develop ANWR, you know hwere we will get our oil: from Saudi Arabia, Iraq, maybe even Iran. And you know how it will be transported: on foreign-registered tankers, with foreign crews, tankers like the *ARGO MERCHANT* and the *AMOCO CADIZ*. Ask the residents of New England's Coast if that is what they want.

For the moment, I think we have to avoid any pointing of fingers or casting of blame. The accident happened; the skipper of the vessel was legally intoxicated; Coast Guard radar did not or could not detect the vessel's movements; and questions have been raised about the speed and efficiency of cleanup. All of these issues need to be looked at by this Committee, as well as what more needs to be done to prevent similar accidents in the future. We can't do that now; the people who can answer the questions for us are busy working day and night to clean up the spill. At the appropriate time, however, I hope we can bring in those who are most involved, and get the answers we need.

In the interim, I suggest that we explore a few ideas. First, we have to reconsider the current rules on use of pilots. A few years ago, this Committee agreed that pilots should be dropped off within the Sound, rather than at Cape Hinchinbrook. This was done to correct a dangerous situation, where pilots had to be transferred in rough water. The alternative was to have a licensed officer on board each vessel who qualified as a pilot. Well, the *Exxon Valdez* had one, and it appears that he was drunk in his cabin. We need to look again at the pilot requirement.

Second, there should be consideration of having a cleanup vessel on station in Valdez. There is no reason to have to wait days for cleanup equipment to arrive.

Third, we need to have more people assigned to the Port of Valdez who can be available for cleanup. I recognize that this will be opposed on cost grounds. Let me

suggest that it is costing this Nation a lot more to bring people in to clean up after the fact than it would be to keep them ready for an emergency.

Fourth, we need clearer lines of authority for cleanup operations. At present, we have the Coast Guard, the State, Exxon, and who knows how many others, all involved in cleanup. We need to have one person in charge who can run the show.

These are just a few suggestions that I think we should explore as we proceed through the hearing process. I am sure that more will be made as we learn more about the accident.

Thank you.

Mr. TAUZIN. Thank you, Mr. Young. The Chair will now recognize Mr. Clement from Tennessee.

OPENING STATEMENT OF HON. BOB CLEMENT, A U.S. REPRESENTATIVE FROM TENNESSEE

Mr. CLEMENT. Thank you, Mr. Chairman. I am really pleased, like everyone, that we are having this hearing on this tragic *Exxon Valdez* oil spill in Prince William Sound. As the casualties mount, Mr. Chairman, there remain many questions about how oil shipments are managed; about how well the oil industry is prepared to cope with accidents; and about whether the Federal Government should intervene more vigorously in cleaning up this spill and other spills.

The hearing today will begin the process of collecting the information necessary to answer these questions. But as we search for answers concerning the spill and its cleanup, I believe it is important to separate questions about safe transport on the seas from questions about safe exploration, drilling, and pumping, whether it be on land or offshore.

While future hearings should focus specifically on the latter questions, the answers we receive today regarding the *Exxon Valdez* oil spill should not in themselves block the exploration or the opening of other potential oil fields in Alaska, or elsewhere.

The tragedy which befell residents and wildlife on the South Coast of Alaska is immeasurable, and likely to have permanent effects, but let us not compound this tragedy by concluding, prematurely, that all oil companies operate in the same fashion as Exxon.

Let us not conclude that oil cannot be found, drilled for, or transported safely on the basis of this single incident.

The chance for a spill is always present. Congress realized this when it opened the way for the Alaskan pipeline. But Congress balanced the need for Alaskan oil against the risk of a spill and its consequences.

Let us work to again achieve a balance, learning from the *Exxon Valdez* spill, and implementing those changes necessary to assure that any future spills have a minimal impact on the environment and the citizens affected.

I heard Congresswoman Schneider talking about new legislation, and it very well may be time—over time—for some oil legislation pertaining to spills, that we can look upon seriously as we move forward to consider new oil exploration in the Alaskan area. Thank you, Mr. Chairman.

Mr. TAUZIN. Thank you, Mr. Clement. The Chair now recognizes the gentleman from North Carolina. Mr. Coble.

OPENING STATEMENT OF HON. HOWARD COBLE, A U.S. REPRESENTATIVE FROM NORTH CAROLINA

Mr. COBLE. Thank you, Mr. Chairman. Not unlike the gentleman from New Jersey, I will be very brief in my opening remarks. But it has been said, Mr. Chairman, that most accidents are not unavoidable. That is to say that with the exercise of due care, and prudence, and caution, most accidents can be avoided, and I think that analogy certainly applies to the tragedy before this Committee today.

I am concerned about allegations regarding a delay in response time. I am sure we will hear from the witnesses today about this. I am concerned about allegations of inadequacies, and incompetence applying to many parties at the scene.

I am looking forward to hearing evidence that probably will be illuminating to that end. I think all of us share the grief with those directly affected, and I look forward to this hearing as it progresses today, Mr. Chairman. Thank you.

Mr. TAUZIN. Thank you, Mr. Coble. The Chair now recognizes Mr. Laughlin of Texas.

OPENING STATEMENT OF HON. GREG LAUGHLIN, A U.S. REPRESENTATIVE FROM TEXAS

Mr. LAUGHLIN. Thank you, Mr. Chairman. Certainly the impact of the *Exxon Valdez* oil spill on the ecology is devastating. I have little doubt that the evidence of this gross negligence will be with us for generations.

Specifically, I feel for the fishermen in Alaska that are fighting day and night to divert the sludge out of the pristine bays to preserve their livelihood.

Their individual efforts, no matter how futile, are to be admired. I understand their odds of winning parallel a historical battle in Texas called the Alamo.

For now, I believe that the spill must be cleaned up in the best way that modern technology can provide, and paid for by the party that is found at fault. In addition, I would like to see expeditious proceeding on H.R. 1465, introduced by the Merchant Marine Committee, to establish comprehensive oil pollution liability, and a compensation fund to replace Trans-Alaska Pipeline authorization provisions of the other three Federal funds.

In conjunction, steps must be taken to bridge the ever-widening gap between environmentalists and the oil industry.

Off the southwest corner of my district is the Aransas Pass National Wildlife Refuge. The refuge was established in 1937 to protect the vanishing wildlife off coastal Texas. Specifically, the refuge was established to save the whooping crane.

In 1941, there were only 15 of these majestic birds. Today, 134 whooping cranes freely soar the 55,000 acres and are making a tremendous comeback.

If an oil spill of half this magnitude had occurred off the Texas coast, and washed up on this refuge, there would be a good chance that now, the whooping crane would be extinct.

I should also point out that since 1937 the Phillips Petroleum Company has occupied this pristine acreage. They have worked

diligently with local community leaders, the Department of Interior, the Park Service, and every imaginable environmental group to ensure a good working relationship, and to set the example that industry can work with the environment.

To date, the only incident on the property was two barrels of oil that tipped over, and the Phillips Petroleum Company spent $4000 cleaning that up.

Let there be no mistake. This oil spill goes much farther than the Alaska coast. It translates into lost jobs for Texans and others in our oil-producing States, that have fallen prey to the decline in the domestic oil market.

In conclusion, I believe that Congress must act now, and must act swiftly to repair the visible and economic damages to the State of Alaska. Until this wound is healed, there will be little chance for further oil and gas exploration in the most sensitive areas of the world.

Thank you, Mr. Chairman.

Mr. TAUZIN. Thank you. The Chair now recognizes the gentleman from New York, Mr. Lent. Let me caution Members, again, that the Commandant will have to leave at 10:30, if you want to get in questions. I think the purpose of our hearing is to hear from the Coast Guard today, and others.

Please, if you can, limit your statements, or even if you would like to pass, the Chair would very much appreciate it. Mr. Lent.

OPENING STATEMENT OF HON. NORMAN F. LENT, A U.S. REPRESENTATIVE FROM NEW YORK

Mr. LENT. Thank you, Mr. Chairman. I would like to make a very brief remark, and indicate that I think this incident is a tragic one. Most of us represent areas that have seashores, and I shudder to think had this accident occurred in Long Island Sound, rather than Prince William Sound. My heart certainly goes out to our colleague, the gentleman from Alaska, and we want to offer whatever help this Committee can give to him during this particular period.

I might also make the point, as a Member of the Energy and Commerce Committee, that we have statistics indicating that we are now 50 percent dependent on imported oil. All of this oil comes to our shores in tankers. Twenty percent of all the oil that we consume in this Nation comes from Alaska.

So it is very important that we not let this accident do anything to interrupt the continued flow of oil from the North Slope. I would also hope that this hearing might give added impetus to the passage of H.R. 1465, a bill that most all of us have introduced—referred to by the gentleman from New Jersey—the so-called Oil Spill Liability Bill. We passed a bill in the House last year. Unfortunately, the Senate did not see eye to eye with us. I hope that this tragedy could perhaps have the beneficial effect of encouraging our colleagues in the other body to report this bill out so we can put it into law. Thank you, Mr. Chairman.

Mr. TAUZIN. Thank you, Mr. Lent. Are there any other Members wishing to incur the ire of the Chair and make an opening statement? Mrs. Lowey is recognized.

OPENING STATEMENT OF HON. NITA M. LOWEY, A U.S. REPRESENTATIVE FROM NEW YORK

Mrs. LOWEY. Thank you very much, Mr. Chairman, and I am pleased that you have moved with such speed to get to the bottom of what happened when the oil tanker, *Exxon Valdez*, ran aground on March 24th in Prince William Sound.

I am particularly interested in exploring ways to ensure that this type of accident does nor recur. But I am having an especially difficult time understanding how Captain Joseph Hazelwood could have been in charge of piloting a 1000-foot oil tanker when his New York driver's license had been revoked three times.

In fact he has not been allowed to drive a car in New York State since last November, yet he is fully certified to pilot an oil tanker carrying 60 million gallons of crude oil. Does that make sense?

Bringing Captain Hazelwood to justice will not erase the damage that has been done to the pristine environment of Prince William Sound, but it can, and should, deter other ship pilots from committing the same infractions.

The case of the grounded *Exxon Valdez* opens a Pandora's box of questions about how prepared we are to deal with a major oil spill.

This accident also raises serious questions about the Coast Guard's certification process for pilots of commercial vessels. I look forward to listening to the testimony during this hearing to find out what can be done to ensure that the United States never faces an oil spill of this magnitude again. Thank you very much, Mr. Chairman.

Mr. TAUZIN. Thank you, Mrs. Lowey. I am pleased we did not miss that statement. We have less than an hour now with the Commandant. I want to make that point.

[The statements of Mr. Herger and Mr. Weldon follow:]

STATEMENT OF HON. WALLY HERGER, A U.S. REPRESENTATIVE FROM CALIFORNIA

Mr. Chairman, I realize that time is short, and I will confine my remarks to a few minutes.

The Valdez spill is a tragic example of the destruction that man can bring to nature. What is especially outrageous is that a little extra care on the part of the crew might have prevented the whole episode.

As we all know, oil in small quantities is relatively harmless. Indeed, several thousand barrels of oil naturally seeps out of the ocean floor in California each year, with little or no damage to marine life.

In large amounts, however, oil presents a much more serious problem. Ten million gallons spilled in Valdez. As we've seen, the wildlife and environmental resources in Alaska are being devastated by the spill.

We must do everything without our power to ensure that this type of accident does not happen again. Indeed, unless I can be convinced that all possible steps are being taken to prevent another disaster like this, I don't intend to support future development.

It is particularly important because it comes at a time when we are facing serious challenges to our energy situation. During the past several years, our domestic production of oil has leveled off, and it appears that production will actually decline at least through the turn of the century.

As a result, our imports of crude oil and gas have increased substantially. During the late 1970's we imported around 30% of our domestic consumption of oil.

Last year, this figure had risen to 40%, and in January it stood at 45%. The Department of the Interior is predicting that our oil dependence will rise to over 50% within the next 10 years.

The main problem with this situation is that with increased imports come increased foreign tanker traffic. And while we have control over our domestic tanker fleet, foreign tankers pose far greater danger to our fragile environment because

many of the nations of registry care little, if at all, about safety. We need to explore what we can do to improve the safety of our own fleet.

Perhaps steps like double-hulled tankers or increased crew requirements would be helpful.

I do believe, however, that a viable energy industry and a safe and clean environment are *not* mutually exclusive. With proper precautions, we can continue needed development of our energy resources in Alaska and elsewhere.

We must act quickly to clean up this spill, at the same time demanding that it does not happen again. But in so doing we must be careful to balance the need we have for continued energy sources with the need for a safe environment.

Mr. Chairman, this hearing offers us a prime opportunity tc begin addressing these problems.

Thank you.

STATEMENT OF HON. CURT WELDON, A U.S. REPRESENTATIVE FROM PENNSYLVANIA

Mr. Chairman, I commend you and the other Members of this Subcommittee for holding a hearing on the oil spill in Prince William Sound, Alaska. The 10 million barrels of oil that have contaminated the bay will have adverse effects for years to come, the worst of which will be on the delicate marine environment along Alaska's southern coast. The nightly news reports we see of waterfowl covered with oil and dead fish floating in oil are appalling. These vivid pictures are another reminder of man's capacity for error in the age of modern technology.

Many of us are especially concerned about the news reports because of our assignment on the Merchant Marine Committee. We have worked on legislation that affects the maintenance and stewardship of Federal lands in Alaska.

For this reason, the recent oil spill and the events leading up to it is a disservice to the Committee's efforts. The circumstances of the spill can best be described as careless and callous. Allowing an inebriated captain to steer a large oil tanker through one of Alaska's most treacherous bays demonstrates a lack of sensitivity to the environment and to human safety. Furthermore, I am appalled at the inadequate equipment Exxon has had to deal with the crisis.

The spill is not only Exxon's problem, but the oil industry's problem. The public will not remember the accident as Exxon's spill, but as an example of the oil industry's negligence in an environmentally sensitive area of the world. Clearly, it is in Exxon's best interest to fully cooperate with the state of Alaska in cleaning up the spill. Furthermore, it is imperative that Exxon fully compensate the fisherman, their families, and other people whose lifelihood is ruined by the spill. During the coming months, the public will be closely watching Exxon to see if its public conscience lives up to its corporate image.

Mr. Chairman, I intend to ask the Committee to consider sending a letter to Exxon. We should outline some basic steps that must be taken to avoid a catastrophe like this one in the future. Indeed the public's confidence in the oil industry's ability to produce and transport oil is going to ahve to be restored before Congress votes on legislation affecting the development of the Coastal Plain of the Arctic National Wildlife Refuge.

Mr. TAUZIN. Any other Members who want to make opening statements? Let me first go to this side. With the permission of the Committee—I know I made a ruling earlier that we would allow Subcommittee Members first—Mr. Miller has requested to make a short statement since he represents the State of Washington—Seattle—heavily impacted directly by this spill. Any objections?

[No response.]

Mr. TAUZIN. Mr. Miller is recognized.

OPENING STATEMENT OF HON. JOHN R. MILLER, A U.S. REPRESENTATIVE FROM WASHINGTON

Mr. MILLER. Thank you for your courtesy, Mr. Chairman, in scheduling this hearing. We have all been shocked by the wreck of the Exxon tanker and the aftermath of our Nation's largest oil spill.

I have been hearing from fishermen, from processing plant employees, from those who work at the companies depending on the fisheries of Prince William Sound. All of these people are in my congressional district. My district, my State is economically impacted as much as the State of Alaska, that my distinguished colleague, Mr. Young, represents.

I think our Committee has to consider four actions. First, getting the spill cleaned up. Second, monitoring Exxon's promise to compensate the fishing industry for lost wages.

The cost of this spill, Mr. Chairman, will be with us for many years, but let's make sure the fishermen do not end up footing the bill. I do not want the fishermen in my district footing the bill.

Third, making certain mitigation of the damage is complete and comprehensive, seeing the waters are returned to pre-spill status. Fourth—and this has been mentioned—promptly approving H.R. 1465, the Oil Pollution Liability and Compensation Act, and looking at either expanding that, or a companion piece of legislation based on what we have learned, in order to take other measures to prevent spills.

Mr. Chairman, in conclusion, there are hundreds of fishermen, thousands of processing plant workers and their families, worrying about their future. My constituents out there worrying about how the losses of fish and habitat will affect the future, their future. I join them in seeking answers and pressing for action.

Mr. Chairman, this disaster should not have happened. We should have done more when it happened, and we cannot let it happen again. Thank you, Mr. Chairman.

Mr. TAUZIN. Thank you, sir. Mr. Manton from New York.

OPENING STATEMENT OF HON. THOMAS J. MANTON, A U.S. REPRESENTATIVE FROM NEW YORK

Mr. MANTON. Thank you, Mr. Chairman. My opening statement will be brief because I think all of us are anxious to hear from today's witnesses. Regarding the massive oil spill in Prince William Sound, let me simply say that I am shocked, I am saddened, and I am angry.

I am shocked, Mr. Chairman, because the Alyeska Pipeline Company, the Exxon Corporation, the Coast Guard, and the State of Alaska, all failed to keep their promise to the American people that a spill of this nature would not be permitted to occur in the waters near the southern end of the Trans-Alaska Pipeline. What is so shocking is that this ecological disaster was imminently preventable, and yet it was allowed to occur. Once it occurred, the parties responsible, primarily Exxon and Alyeska, were not prepared, and apparently were not even concerned about the severe ecological and economic consequences of the ruptured tanker, spilling millions of gallons of crude oil into Prince William Sound.

I am saddened, Mr. Chairman, because this spill has brought terrible damage to the hundreds of species of marine life living in the sound, and along the sound's islands. It has brought death and destruction to the area's profitable and important fishing industry, and has sullied one of the most beautiful spots on the North American continent.

Finally, Mr. Chairman, I am angry. I am angry because irresponsible actions of Exxon and Alyeska have put in peril the billions of barrels of oil lying beneath the coastal plain of Alaska's Northern Shore. This oil is vital to our Nation's future economic health and our national security. It is also vital to our domestic shipping industry and our manufacturing base in the lower 48 States.

We can adopt measures to increase fuel efficiency. We can adopt measures to increase conservation. We can promote alternative sources of energy. Yet, in the end, we will still need the oil on Alaska's North Shore to fuel our economy, lessen our foreign trade deficit, and prevent a return to the economic and political leverage Middle Eastern nations exercised over this country as they did during the years following the Arab oil embargo and the Iranian revolution.

Ironically, Mr. Chairman, Exxon and Alyeska, two of the biggest beneficiaries of our need for this North Slope oil, have acted in a manner which may prevent this resource from being fully realized by our Nation. If this imperilment is the result of an unavoidable circumstance, then maybe I would just be shocked and saddened. But, given the facts—as I understand them—I am angry, and the American people are angry. And they have every right to be.

Thank you, Mr. Chairman.

Mr. TAUZIN. Thank you, sir. The gentleman from Oklahoma is recognized.

OPENING STATEMENT OF HON. JAMES M. INHOFE, A U.S. REPRESENTATIVE FROM OKLAHOMA

Mr. INHOFE. Mr. Chairman, this will be very brief, and I do not have a written statement to read. I only want to say that I believe you, in your opening remarks, and the Ranking Member, both said it, and I want to make sure everybody understands it.

This is a tragic thing that happened, and as I understand it—and we will find out more today—Exxon has assumed the responsibility, and disciplinary action is being taken. But we cannot lose sight of the fact that the real mission here today is to prevent and to respond in the event it happens in the future.

While it is an economic and an environmental tragedy that took place, a far greater tragedy would occur if this were used to retard our exploration and production activities in both the Arctic National Wildlife Refuge and the Outer Continental Shelf.

At a time when we are teetering on the 50 percent dependency on foreign oil for our very existence and our Nation's security, we cannot allow this to happen.

So I hope that we can focus on the problem, as it exists, one of transportation, and not let it impair our ability to become energy self-sufficient.

Mr. TAUZIN. Thank you, Mr. Inhofe. The gentleman from Maine, Mr. Brennan, is recognized.

OPENING STATEMENT OF HON. JOSEPH E. BRENNAN, A U.S. REPRESENTATIVE FROM MAINE

Mr. BRENNAN. Thank you, Mr. Chairman. Just very briefly, the people of the United States, and the world, learn again of the con-

sequences of alcohol abuse with the massive destruction of the environment and wildlife. I think we also learn of the responsibility of top officials of companies like Exxon who have policies in place, that assure that their ships are not operated by drunken captains.

Right now, the policy seems to be the hell with the public; the hell with the environment. I say that news accounts have clearly indicated that there was more than ample evidence for a company like Exxon to have taken action to make sure that somebody was not operating this ship, or did not have a responsibility to operate that ship under the influence of alcohol.

Yes, we all have a deep responsibility—the Congress, the Executive Branch, and industry—to make sure that something like this does not occur again.

In view of this gentleman's record, it is absolutely appalling that a company like Exxon would let him operate that ship.

Mr. TAUZIN. Thank you, sir. The time for opening statements has now expired, unless there is some Subcommittee Member who insists.

[The statements of Mr. Pickett and Mr. Carper were submitted for the record and follow.]

STATEMENT OF HON. OWEN B. PICKETT, A U.S. REPRESENTATIVE FROM VIRGINIA

Mr. Chairman, this morning the Subcommittee begins the long process of investigating, and developing an appropriate response to, the worst oil spill in our Nation's history.

We begin this process less than two weeks after the tragedy occurred. The citizens of Alaska, Exxon, and volunteers from around this Nation are still in the midst of a massive cleanup operation. Marine biologists are only beginning to assess the enormous impact of the spill on the marine life in Prince William Sound. The Coast Guard and other Federal agencies are trying to determine how this vessel could have strayed so far off its proper course, and most important, fishermen and others who depend on this delicate environment wonder how they will make it through this season.

It is not too soon, however, for the Subcommittee to take a very hard look at the issues raised by this spill. Of these, the most important is why it took so long for the spill to be contained. Between fifteen and twenty-five percent of America's oil supply comes from Alaska, and yet, when an oil spill occurred, it took days to bring in equipment from elsewhere to contain the spill and begin the cleanup. Clearly there was no prior planning or contingency plan in place.

The Subcommittee also needs to examine carefully the requirement for pilots on vessels in areas like this, as well as the problem of drug and alcohol abuse by merchant seamen and others who hold positions in the transportation industry that are vital to public safety.

What the Subcommittee should not do is rush to legislative solutions simply out of a desire to "do something." Nor should we allow this tragedy to affect our energy policy. The problem here was the safe operation of a tanker, and our response to a tragic oil spill. The problem is not our policy concerning exploration and production of Alaskan oil.

STATEMENT OF HON. THOMAS R. CARPER, A U.S. REPRESENTATIVE FROM DELAWARE

Within the oil industry and at all levels of government, there has been too little attention paid to the potential magnitude of oil tanker spills like this—too little attention paid to the fitness of supertanker crews, too little contingency planning for containment and cleanup by industry, too little oversight by state and Federal agencies to make sure that planning is adequate, and too little coordination between Government and industry *before* a disaster occurs. Congress also shares in the blame. Eight times we have tried to pass tougher pollution and liability standards for oil spills, eight times we have come up short. The result has been a patchwork of

state and Federal policies which are collectively inadequate to confront a disaster such as the *Exxon Valdez* spill.

The frustration level is high in Congress and throughout America as we helplessly watch oil spread to environmentally sensitive areas of Prince William Sound. The cleanup will be aggrevatingly slow and expensive. But the ultimate failure in this whole bungled mess would occur if the call for reforms to prevent this kind of oil spill disaster in the future is lost in the storm of accusations and recriminations that will continue to build as the story of this calamity unfolds.

Mr. TAUZIN. Then the Chair is pleased to welcome our first witness, the Commandant of the U.S. Coast Guard, Admiral Paul Yost. Admiral Yost.

STATEMENT OF ADMIRAL PAUL A. YOST, JR., COMMANDANT, U.S. COAST GUARD; ACCOMPANIED BY VICE COMMANDANT CLYDE LUSK; CAPTAIN KEN THOMPSON, CHIEF, PROGRAMS DIVISION; AND CAPTAIN DAVE SPADE, CHIEF, BUDGET DIVISION

Admiral YOST. Thank you very much, and good morning, Mr. Chairman. Accompanying me today are the Vice Commandant, Vice Admiral Clyde Lusk, to my far right; and the chief of my Programs Division, Captain Ken Thompson, to my immediate right; and the chief of my Budget Division, Captain Dave Spade, to my left.

I am pleased to meet with you and the other distinguished Members of this Subcommittee to discuss the grounding of the tanker *Exxon Valdez*, and the resulting oil spill in Prince William Sound.

I would like to summarize my statement, but ask that the full statement be included in the record.

Mr. TAUZIN. Without objection. And the Chair would admonish all witnesses to follow the example of the Admiral in doing so. Admiral.

Admiral YOST. Thank you. Mr. Chairman, last week, after my trip with you to the Gulf was cut short because of this disastrous oil spill, Secretary Skinner, the EPA Director Reilly, and I spent two days in Alaska getting a first-hand look at the oil spill area and the cleanup activity.

Just before we left Alaska, we met with the President in the Oval Office to discuss this tragic situation and receive his instructions.

Let me assure you that the President is deeply concerned about the environmental issues, and very interested in the Coast Guard's marine safety and environmental protection missions.

When we returned, we reported back to the President on our findings. We are getting good cooperation from all of the agencies and parties involved in trying to minimize the potentially devastating effects of the largest oil spill in this Nation's history.

I am satisfied that this country's national response organization is working well, considering the severity of the spill and the remoteness of the area.

There is also significant cooperation and effort from the State of Alaska, volunteers from environmental groups, fishermen, and the local public in general.

The Federal on-scene coordination for the cleanup operation is Coast Guard Commander Steve McCall, the Captain of the Port of Valdez.

He is being advised by leading marine environmental and pollution experts representing all of the agencies and parties involved. Exxon has assumed full responsibility for cleanup and their activities are being guided by Commander McCall.

Now I would like to take a minute or two and ask Commander Hollingsworth of my staff to brief the Committee on the situation with the oil spill as of this morning. Commander Hollingsworth.

Commander HOLLINGSWORTH. Good morning, Mr. Chairman. I am Lieutenant Commander Wayne Hollingsworth. I work in the Environmental Response Division——

Mr. TAUZIN. Commander, you ought to speak loudly, or, if we can get a mike to him. Is that possible?

Commander HOLLINGSWORTH. It should be on.

Admiral YOST. He is wired for sound. The wiring does not work.

Commander HOLLINGSWORTH. I will speak up.

Just after midnight on Friday, March the 24th, the tank ship *Exxon Valdez* ran aground on Bligh Reef while outbound in Prince William Sound.

Valdez is located here. The vessel ran aground in this area. Eleven of the vessel's 16 tanks were reported damaged. Eight of the 11 tanks contained cargo. The vessel was carrying 53 million gallons of Alaska North Slope crude oil. Approximately 10 million gallons was spilled.

It is estimated that most of the oil was released into the water within the first three or four hours after the grounding.

The Coast Guard Marine Safety Office Valdez is the pre-designated Federal on-scene coordinator for this incident. They were notified of the incident at 12:28 a.m. They immediately closed the port, and began their Federal and State notification process.

Coast Guard personnel were aboard the *Exxon Valdez* within three hours after they were notified. They could not fully assess the situation until first light.

The regional response team for Alaska was activated, and a teleconference was held late in the morning on the 24th. Dispersant use and burning were discussed as possible supplements to mechanical cleanup.

The on-scene coordinator is responsible for overseeing the cleanup operations. In doing this, he must ensure that the cleanup is adequate, timely, and will minimize the damage to the environment.

Exxon relieved Alyeska of financial and logistical responsibility at noon on the 24th. The Federal Government and Exxon have deployed tons of equipment and hundreds of personnel to the scene.

Government equipment on the scene includes three Coast Guard cutters, six Coast Guard aircraft, one NOAA aircraft, six Coast Guard portable pumps which were used to offload the *Exxon Valdez*, one Coast Guard open-water skimming system, seven Navy skimmers, and over 36,000 feet of boom. There are 388 Coast Guard personnel on scene, and 88 other Federal employees on scene.

Exxon has contracted for approximately 100 vessels. Twenty-eight of these vessels are directly involved in wildlife recovery. Three barges are on scene to accept the oil recovered by the skimming systems. Exxon has also contracted for 49 aircraft and 12 skimmers. Over 110,000 feet of boom have been deployed, and

35,000 feet of boom are en route. Over 300 people have been employed by Exxon.

The response consists of three phases. Phase one, an assessment of Prince William Sound, was conducted to determine the cleanup priorities of the impacted areas. Phase two is the cleanup. Phase three is an evaluation of that cleanup.

The cleanup phase of the response involves three parts. Part one eliminated the threat of future pollution by offloading *Exxon Valdez*. Part two is to protect sensitive areas such as the hatcheries in Esther Bay, Main Bay, Eshamy Bay, and in Sawmill Bay, by using containment and sorbent boom. Part three of the cleanup phase is the actual cleanup. That will be the most labor- and time-intensive part.

Three vessels were used to offload the *Exxon Valdez*. Offloading began March 25th, and was completed April 4th.

Coast Guard strike team personnel supervised the offloading. Ten portable pumps were used in the operation. Six of these 10 pumps were provided by the Coast Guard strike team.

The vessel was refloated on April 5th and was moved to the west of Naked Island, in this area right here. The vessel is anchored and has been completely boomed.

Actual cleanup is being done mostly using mechanical means. Dispersant and burning have been used on a limited basis. Mechanical recovery has accounted for the removal of over 700,000 gallons of oil. NOAA estimates that approximately 30 percent of the oil spilled has evaporated.

The high viscosity of the weathered oil is causing the skimmers to operate at below normal capacity. It is also requiring the skimmers to be cleaned frequently.

I am going to refer to the chart. The areas in red indicate heavy concentrations of oil, the areas in green are medium concentrations of oil, and the areas in blue are oil sheens that are on the water. The dark areas along the beach are the areas of heaviest impact.

Throughout the incident, from where the vessel grounded, the spilled oil has primarily moved in a southwesterly direction.

That is due, in part, to the prevailing and the fact that the water generally moves through Prince William Sound by entering Hinchinbrook Channel and exiting Montague Strait.

The heaviest concentrations of oil have been on Naked Island, Smith Island, Knight Island, Green Island, and in the area around Evans Island.

Skimmers have been operating on the northern side and to the west of Knight Island, around the southern part of Knight Island, and in the Sawmill Bay area which has one of the sensitive hatcheries.

Beach cleanup is being conducted on Naked Island and Smith Island. The oil is flushing into the Gulf of Alaska, generally moving in a southwesterly direction. The farthest advance of the oil is a little over 60 miles. There has been some slight impact outside of Prince William Sound in these areas right in here.

Let me start by saying that Valdez is up in this area. This is Prince William Sound. Kodiak is down here.

The marine safety office in Anchorage is pre-planning to ensure that sensitive areas along the Alaskan coastline are being protect-

ed. Seward, which is located right here, has deployed boom that has been provided by Exxon and the Coast Guard.

The Coast Guard will pre-stage two Coast Guard barrier booms in Homer. They will also pre-stage two barrier booms in Kodiak. The on-scene coordinator, with the assistance of the regional response team, will continue to directly and closely monitor the response and support actions by Exxon.

That concludes my briefing. Admiral.

Admiral YOST. Thank you very much. That concludes my opening statement and we would be happy to answer any questions that the Subcommittee may have.

[The statement of Admiral Yost can be found at the end of the hearing.]

Mr. TAUZIN. Admiral, thank you very much.

News reports this morning indicate that the Governor of Alaska has concluded, in his opinion, that Exxon is just too big and bureaucratic to handle this cleanup effort, and is now making another request that the Coast Guard take over the management of the cleanup since it has military command capabilities.

Are you prepared to respond to that request, and, if so, what is your response?

Admiral YOST. Well, I think the Governor and I have come to the same basic conclusion. I have discussed this with the Alaska delegation, and we were in the Oval Office all morning yesterday with the same kind of a discussion.

My district commander is now taking on more of the guidance of the spill cleanup than we have heretofore, more direction. We are going to discuss, with Exxon and others, how to best accomplish the cleanup without losing any ground, while taking full advantage of the organization that we have in place. Frankly, we want to take full advantage of Exxon's willingness to open their checkbook and fund this cleanup.

Mr. TAUZIN. Admiral, I know, because I was with you when this incident began to break, that you responded before being requested to respond by Exxon, in sending equipment to aid in this cleanup. You and I were enroute, as you remember, to New Orleans, for meetings in New Orleans at the time.

And I am aware, of course, that you have exercised extraordinary concern on behalf of the Coast Guard and its responsibilities here.

But the question that this Committee will be extremely interested in as we pursue this tragedy to its conclusion is the ability of the Coast Guard, and in fact of our Federal system, to respond, if in fact we had made the choice to federalize this cleanup.

Is it a fact that Exxon has more money and more resources than our U.S. Coast Guard?

Is it a fact that our oil spill liability fund is so small, so weak, that you were not really faced with the right kinds of options here, and that you had to rely on Exxon to clean up this mess?

Admiral YOST. Well, some of that is perhaps true. The oil liability fund, the 311(k) fund, is now down to some $3 million or $4 million. We are looking at a $100 million-$200 million spill. We are looking at a corporate giant who has been a good corporate citizen

in their response so far, willing to open their checkbook, put no limits on it.

I would be very reluctant to federalize this spill with $4 million in my pockets when I know that we are spending over $100 million a day to—by "we", Exxon is. So some of what you said is certainly true.

Also, I am well aware the Coast Guard is a military organization, a very responsive organization, an operational organization. We need to provide the guidance and the direction to Exxon as we move forward on this thing.

Another thing of some interest is the massive contracting problem that the Federal Government—to wit, the Coast Guard—would have, were we to federalize the cleanup.

I estimated yesterday that it would take something over 20 or 30 contracting officers alone to go to Alaska to start to supervise these contracts.

Now, a corporate entity does not have the Federal procurement rules, the regulations, all of the problems that you have in the Federal Government of taking bids, being sure that everybody has a shot at it.

You cannot just go out and begin to write checks, as Exxon can.

So I think we need to be very careful as we move towards a full federalization, and it would be much better if we could manage this spill, using Exxon as the checkbook. I think we will do much better at that.

By the way, in 1988, we had some 1600 spills cleaned up. Fourteen hundred of them were by private people. Less than 200 did we federalize and manage ourselves. This spill is mammoth compared to anything that we have seen so far.

Mr. TAUZIN. Admiral, recognizing that, indeed, Exxon is spending—I think about $1 million a day—in the cleanup right now, and that——

Admiral YOST. Yes, a million.

Mr. TAUZIN. Yes. And that with the oil spill liability fund at about $3 million, if you were to federalize you would last three days out there.

That raises a big question. That is, that even if our bureaucracy is as bad as Exxon's, or perhaps worse, the option was not yours, was it not?, to federalize so massive a spill, because we have not provided you with that option?

Admiral YOST. I would have been very reluctant, all other things being equal, with the fund at $4 million, to federalize a spill that I knew was going to go $100 million.

Now we can do that, and there are ways around that, and we could come up here for reprogramming, and we could come up for more money and those kinds of things, but you know yourself, that sometimes things even take time in this Congress of ours.

Mr. TAUZIN. Touche.

[Laughter.]

Mr. TAUZIN. We have our own little bureaucracy up here, too. Admiral, before I yield for other questions, I am going to ask you the tough one that other Members have asked in opening statements.

How is it that Captain Hazelwood was in command of this vessel? How is that possible, under our rules? What is wrong with our rules? What ought we to do to change it?

Admiral YOST. Well, of course, Captain Hazelwood had a license. Part of the requirement to have a license renewed, in addition to being qualified, involves submitting an application. On that application you must list any convictions that you have had. That includes anything except minor traffic convictions.

Now we have reviewed the application for renewal of his merchant mariner's license. He did not list the kinds of things that Mrs. Lowey mentioned, that were in his record. Those things were not listed. Had they been listed, there would have perhaps been a very different result on his ability to renew this license.

Mr. TAUZIN. Let me interrupt, quickly. DWI is not a listed offense on the application for renewal of license?

Admiral YOST. DWI is an included offense in that it asks have you had any convictions, other than minor traffic offenses, in the last "x" number of years. In five years. He listed none, when in fact we have heard testimony here, and in opening statements—we have seen it in the newspapers—there have been some convictions very recently.

Mr. TAUZIN. Is the procedure for renewal of license such that there is no background check, no computerized search, as other computerized searches are often made for criminal records?

Admiral YOST. There is no computerized routine check unless something on the application keys it. Then there is a check which takes a very long time, sometimes as long as a year to go through all of the checks you need to go through.

But routinely, we do not do that. We take the application and we do not look behind the application.

We have thousands of applications each year for merchant mariner's license.

Mr. TAUZIN. One final thing. Are you prepared, now, to say that you are ready to recommend changes in those procedures?

Are you prepared, for example, to recommend mandatory drug testing, as we have recommended for military services?

Are you prepared to recommend mandatory computer checks of criminal records?

Are you prepared to make any other recommendations that would have prevented this man from being at the helm of this ship?

Admiral YOST. Well, let me say that we have drug testing required now. Before you can apply for a license you must take a drug test, a urinalysis test. That is routine. That is done. There are also regulations on the street, that are being commented on now, that will require random drug testing. Drug testing is required after any accident.

What we are talking about is a drug, an illegal drug. Now, unfortunately, in our society, we do have a legal drug, and that is alcohol, and that is not illegal to use. The abuse of it is hard to identify. A DWI is one of the ways you identify abuse of it. I am not sure that that is sufficient, but it is very difficult to find a way that is better than looking for DWIs.

Somebody that abused alcohol, that did not drive a vehicle at all, never applied for a license, that would not be a way to identify that. So unless he identifies it on his application, or that you can find evidence some place else that he is an alcohol abuser, it is very difficult to wring that out.

Mr. TAUZIN. Thank you, Admiral.

I will now recognize the gentleman from Alaska for questions. Mr. Young.

Mr. YOUNG. I will ask not as many questions. I know everybody is very interested in asking their own questions, and we have a lot of people here.

There has been an accusation that the Congress and the Coast Guard decreased their traffic-safety radar coverage in this area because again—as in my opening statement—I think we became very lax. What would it cost to extend the radar and the traffic control system to the outer rim, in fact all the way to Hinchinbrook to make sure—and again, I do not care what kind of radar we have. If you have got a pilot, if you look at that map, he had to deliberately take a turn to the left and go to the rocks. If there was a pilot on the bridge, by the way.

But what would it cost, and will you ask for that from this Committee?

Admiral YOST. Yes. I will furnish that for the record. I do not have it. It was considered when we put in the traffic system, as you remember, Mr. Congressman. We took a look at that when we put it in, about 1977.

I do not have those figures, what it would cost to do that now. Now when we put it in in 1977, it was the conventional wisdom that the area was so wide—10 miles wide where he went aground, and it opens up down to Hinchinbrook probably to 20 miles wide—that it would not be necessary to have radar coverage of that area any more than it would be in Delaware Bay, Chesapeake Bay, San Francisco Bay, et cetera.

We will give you that for the record, sir.

[The information of Admiral Yost follows:]

Our estimate is $20 million to expand radar coverage to Cape Hinchinbrook. This includes all phases of design, procurement, and installation. Annual recurring maintenance and support cost is estimated at $850 thousand thereafter. This project calls for three additional radar sites to provide overlapping coverage from Potato Point to the Gulf of Alaska, including Knowles Head anchorage ground. The costs include five Acquisition, Construction and Improvement (ACI) billets necessary to design, procure and install the system. Four additional Operating Expense (OE) billets are needed thereafter to add a second person on watch.

Mr. YOUNG. Well, again, I am going to try to make sure that is done, again, as part of the preventive maintenance, the preventive character, to make sure this does not happen again, and this is part of that practice.

Do you have any feelings about taking the pilots all the way to Hinchinbrook, and utilizing somewhere—what we call an "on-shore pilot"—that is based there, knows the area, and undoubtedly will be sober—and as a pilot, I speak, you know, with sort of a little prejudice there. And would you have any comment on that?

Admiral YOST. Well, no, I would not oppose that. I would say, however, when we started the system—this was in 1977—we talked very seriously about having pilots get on at Hinchinbrook.

What that resulted in was we boarded foreign vessels at Hinchinbrook with State-licensed pilots. We had an accident there, shortly thereafter. A pilot was hurt, and the decision was made, at that point, to no longer board even foreign vessels at Hinchinbrook, but we would board foreign vessels—or the pilots would—at Bligh Island. That is what has been done.

There are only nine foreign ships in there. There are only nine foreign ships in the trade. There are about 74 U.S. vessels in the trade. We board them at Rocky Point, which is well inside. Should you do it at Hinchinbrook? It is very dangerous, it is rough—as you know—and it would be a major effort to do that. But I am open to that.

Mr. YOUNG. The other thing, Admiral, is that I think it would work, and if the water is so rough, they can go all the way to L.A., and I am confident that the oil companies would pay for it right now.

And the second thing is that—and I want to make it clear for the record—those foreign vessels are not shipping that oil to foreign countries. It is still coming to the United States.

The last thing, Admiral, is the comment from the Chairman about federalizing. I know there has been some discussion and that the Governor has requested it now.

It appears to me your answer is very clear—the money is not there. And if we were to federalize it, would that relieve Exxon from any of the responsibility of the spill?

Admiral YOST. I think if we federalized it, it would in fact relieve Exxon from a lot of the liability. They certainly would not be opening their checkbooks on a daily basis, and it was my understanding—although you are much closer to it, Mr. Congressman—it was my understanding that the Governor had not gone all the way to federalization.

What he had said is he would like to see the Coast Guard take a bigger role in the guidance and direction, and the management of that thing. We are willing to do that, and moving to do it right now.

Mr. YOUNG. And I would support that, with the understanding—one of the weaknesses, I believe, in this whole incident, that has come out—we had actually three generals in the field, and in the case of this war I would prefer the Coast Guard being the general.

And if we can set it up as doing that for this spill and future spills, I think we ought to agree to that system, where one person has the responsibility of directing—regardless of who is responsible—of the spill, and, hopefully, the Coast Guard does not have a spill.

But I do believe that would work, and if that is what he is asking for, I think that makes sense. But to take and make sure it is federalized, I have very serious reservation about the responsibility, then, and I am not saying that lightly.

You know, Exxon has spent a lot of money and they are going to spend a whole lot more, if I have my way. But I want to make sure that no one is relieved of their responsibility, but to have you run

it I think is basically the right system, and you making the decision to make sure that cleanup takes place. Thank you, Mr. Chairman.

Mr. TAUZIN. Thank you, Mr. Young. The Chair is pleased to recognize the gentleman from Florida, the former Chair of this Committee, Mr. Hutto.

Mr. HUTTO. Thank you, Mr. Chairman. Admiral Yost, you stated, correctly, that alcohol is a legal drug. That being the case, in carrying out an important mission like transporting oil, wouldn't it be a wise idea, perhaps, to make some special consideration, and ban alcohol from the personnel on board the tanker?

Admiral YOST. I think that that makes a lot of sense. Most companies, including Exxon, do in fact have an absolute ban against alcohol aboard their vessels. The Coast Guard, in order to enforce it, instead of having an absolute ban so that we have to search a vessel to find an offense, we have a ban against people using alcohol before they take a watch, or having a blood-alcohol level above .04 percent.

That is well below, by the way, intoxication. So, as an enforcement tool, we require anybody that is on duty to have a blood-alcohol level below .04 percent.

We have looked at banning it completely. There is a certain level at which you can test. It is very difficult to test much below .04, so we use that as a threshold.

Mr. HUTTO. Admiral Yost, I understand that the Coast Guard does not require the approval of contingency oil spill plans. Alyeska had a contingency plan, but you were not required to, in any way, review or approve that plan, is that correct?

Admiral YOST. The Alyeska contingency plan was a requirement placed on them as a requirement for the permit from the State of Alaska.

The contingency plans that the Coast Guard has, and requires are, first, the national contingency plan, and under the national contingency plan there are regional contingency plans for each region of the United States.

Under those regional plans, each Federal on-scene coordinator—the Coast Guard, senior Coast Guard officer in each port has his own Coast Guard contingency plan. Now these plans locate, designate the fragile areas. They locate the equipment, the boom and the skimmers, where they are, how you notify the owners, how you get the equipment to the fragile areas. The organization.

We do require at each chemical or oil loading facility that the company that runs that facility have a contingency plan for cleaning up any spill at that facility.

What we are talking about here is a plan to clean up Prince William Sound which is a very large bay area. That was a State requirement before Alyeska got their permit.

The Coast Guard does not have, or require an agency to have, a contingency plan for a large bay. For instance, what agency would you say ought to have the contingency plan for the Delaware River or the Delaware Bay, or the Chesapeake Bay, or San Francisco Bay?

We have a local Coast Guard contingency plan on how we will stand up the organization to clean up a spill.

Mr. HUTTO. Would you recommend that the Coast Guard have more authority in approving the regional plans, or more than local plans?

Admiral YOST. Yes. Well, the regional plans are a Federal plan. The local plan is a facility plan. We do approve, write, sign off on those local facilities for each dock and loading facility, and fueling facility. So we do that.

Where you have a problem is when you have a high-seas spill, or a spill in a large body of water, that nobody is directly responsible for as a private corporation.

Mr. HUTTO. I understand that Alyeska estimates that under their plan, 50 percent of the oil would be recovered, either directly from the water or after being washed off of the rocks, and 15 percent would be recovered from the shore, 15 percent would naturally dissipate, or disappear or disperse, and 5 percent would remain in the environment.

Do you have any indication of any of these facts being borne out in this situation?

Admiral YOST. Well, some of them, but not all of them. To begin with, the Alyeska plan provided for the biggest spill that either Alyeska, or the State, frankly, could imagine.

The worst-case scenario for that plan was one-fourth of the amount that was actually spilled in this case. In other words, the plan was built on a worst-case scenario of about 2.5 million gallons.

In fact we had 10 million gallons, or four times that much actually spill. So, the plan, to begin with, had a major fault; it was completely inadequate. It is not surprising that the response has not been as effective as the American people and the Congress would like it to be. Or me, either.

Now, of that 10 million that is spilled, we had about 3 million evaporate. Of the 7 million, then, that is still in the water, we have cleaned up about—by "we", all the agencies, and Exxon, and what have you—about a half a million gallons.

Now that is a half a million gallons out of 7 million. That is all that has been picked up. That is the same amount that clings to the side of the tanks in this tanker. There is half a million gallons still in the tanker that is just clinging, that you cannot get out.

So it is a very small amount that we have been able to clean up in the last week or two. Frankly, that will become less and less and less as a rate of pick-up, because the oil is harder and harder to pick up as it weathers, scatters, spreads. So the half million we have already picked up is more than we can expect to pick up in the immediate future.

What you are going to clean up now is going to come off the beach, going to come off of rocks, going to come in sorbent booms. It is going to be very, very difficult to get much of the rest of the 7 million gallons out of the water.

Mr. HUTTO. OK. Well, you are dealing in gallons and the information we have here is in barrels. It is my understanding that there were 240,000 barrels that were spilled. Is that correct?

Admiral YOST. That is right.

Mr. HUTTO. And the contingency plan, I believe, would indicate that 200,000, or almost all of that could be taken care of, but I am assuming, from what you said, that the experience is that since we

do not have much experience in cleaning up oil spills, that it is not going according to the plans. Is that pretty much to——

Admiral YOST. Well, we have got a lot of experience in cleaning up oil spills. Ixtoc 1 was the biggest oil spill the world has ever known. We cleaned up what came on the Texas coast from that. The Burma Agate off of Houston was one of the biggest problems we had in the U.S. waters. We were able to clean up that.

But nobody has ever had, in American waters, 10 million gallons in the water, 240,000 barrels, that was dumped in the water within two or three hours, in a remote location some 20 or 30 miles from a remote location itself, Valdez. It is very difficult to get the equipment on scene to do that.

Now we can criticize, and I do criticize Exxon for being very late in their response. What we had here was a massive, massive situation that we, as the Congress, and the American people, and the United States Coast Guard, want to get cleaned up immediately and see it out of the water. It is something that is not going to happen, even though we all want it very badly and we are going to try very hard. It is beyond man, at this point, with what we have, to do what we would like to do.

Mr. TAUZIN. The gentleman's time has expired.

Mr. HUTTO. Thank you, sir.

Mr. TAUZIN. I thank the gentleman. The gentleman from Virginia, Mr. Bateman, is recognized. The Chair is proceeding in order of seniority on the Subcommittee. Mr. Bateman.

Mr. BATEMAN. Thank you, Mr. Chairman. Reference was made to the Coast Guard being on board the Valdez within three hours of notice. When did the Coast Guard receive notice of the incident, the first notice of the incident?

Admiral YOST. I think we received notice within about 20 minutes of him going aground. When a vessel goes aground, normally, the skipper's first inclination is how do I get it off of here. Within 20 minutes, he notified us he was hard aground.

Mr. BATEMAN. Do you find anything to complain about, or any objection that should be raised for lack of more prompt notice to the Coast Guard?

Admiral YOST. No. I do not think that—I think 20 minutes is very reasonable notice. I think getting Coast Guard people on deck, and starting to interview people, and smell people's breaths, and what have you, within three hours, when you are in the middle of the night, in a remote location of the world, and 25 miles from that remote location by sea, is also all that I could expect.

Mr. BATEMAN. Admiral, I was seeking to focus on the time lapse from the point where there was information that the tanker was losing oil into the environment, to the time that there was a tanker there to offload, and to minimize the amount of oil that would be spilled.

And it looks like, to me, there is almost a day and a half, two days, before there is anything on site to begin the offloading operation.

Is there a problem there that we should be concerned about?

Admiral YOST. Well, I think there are a couple of problems there. One, the tanker's piping system was damaged, damaged to the extent it could not be used. When that happens, the only way of

getting oil off is out the top, and you have to have submersible pumps.

Now the submersible pumps for that kind of thing are in very short supply. The United States Coast Guard owns a great proportion of them worldwide. We station some of those pumps near the Gulf Coast, and some of them in San Francisco.

Within hours of being notified of the problem, we had a C-130 airborne with pumps and people from our Pacific strike team. By the time they got aboard, or very shortly after, tankers and barges were available.

Before we started pumping, Exxon brought an architect on board. The naval architect said stop, don't do anything until I analyze the damage here, because if you people start pumping this thing in the wrong sequence you are going to break the back of this ship, and you are going to have not 10 million in the water, you are going to have 53 million in the water.

So some of these things had to be done, and I think we have got to visualize night at sea, in a remote location, decisions being made on the best information. I am not at all dissatisfied with the time it took to get Coast Guard pumps on board, naval architects in analyzing the thing, and even getting a tanker to pump into.

That went all right. I would have liked to have seen boom there a little faster. I would have liked to have seen the five hours met by Alyeska. That was not met. I think we can all guess, and second-guess, how much difference that made.

The fact of the matter is it was not there. We are going to examine that. In fact, the President has directed Secretary Skinner and myself, and Mr. Reilly, to completely analyze the response and to report to him within 30 days, which we are doing.

Mr. BATEMAN. Thank you, Mr. Chairman. I will yield back the balance of my time.

Mr. TAUZIN. Thank you, Mr. Bateman. I appreciate that. Mr. Clement of Tennessee is recognized.

Mr. CLEMENT. Admiral Yost, I understand that the shipping lanes into and out of Prince William Sound are well marked for oil-carrying vessels. Since the opening of the oil terminal at Valdez, how many incidents have there been of tankers straying without authorization out of those shipping lanes?

Admiral YOST. Well, I am not aware of any. I would have to report for the record on that, how many ships actually left the traffic separation scheme that is laid down on the chart. I think you are going to find very few have done that, and certainly none so as to endanger the vessel, that I know of, but I will report on that for the record.

[The information of Admiral Yost follows:]

We have no record of any vessel deviating without authority from the mandatory shipping lanes. Conformance with the Traffic Separation Scheme (TSS) is mandatory for all vessels participating in the VTS. Departures from the TSS are routinely authorized as long as the Vessel Traffic Center is notified of the intent to depart the TSS.

Mr. CLEMENT. So you really have not had a problem in that area?

Admiral YOST. There have been no groundings, and there have been 8700 tanker trips through there—no groundings of any kind, no collisions. It has been a very safe operation.

Mr. CLEMENT. Reports continue that crew members of tankers reporting at Valdez smuggle alcohol on board their vessels. I know it was mentioned a while ago, but what steps, if any, is the Coast Guard taking to improve surveillance of crew members boarding vessels tied up at Valdez?

Admiral YOST. Well, we have not addressed that. I would say this. The responsibility for enforcing those regulations on board a tanker belongs with the master of that tanker.

Now where you have something break down is when you have the master, or the person responsible for the enforcement, and the setting of standards, break those standards himself. That is what we have here, and it is not possible for the Coast Guard to enforce alcohol standards on tankers at sea.

That is up to the master. And of course when we board, if we see something wrong, if we have a report of something wrong—if the master, or any mate, or anybody on the ship reports that somebody is using alcohol, we investigate that.

But it is very difficult, as in this case, when the master himself was allegedly the abuser.

Mr. CLEMENT. The Coast Guard, as I understand, has agreed to the State of Alaska's request that shipping at night through the Prince William Sound be discontinued.

In your opinion, is night shipping inherently dangerous?

Admiral YOST. No; it is not. On the other hand, I have imposed on that system some very, very rigid standards while we are cleaning up this spill. I have imposed on the vessel traffic service a plotting standard, a keeping track of tanker standard, a no night operations standard, a requirement for two tugs to escort every tanker. That is far and beyond anything that I would have thought of doing, or anybody would have thought of doing, three weeks ago.

I am going to continue with that regime until I get the results of a board of investigation that I have appointed to look into the actions of the vessel traffic system at Valdez, the Coast Guard system, and until I get the recommendations of the National Transportation Safety Board which I requested investigate this spill.

If those two reports give me a strong indication that I should keep some or all of these extraordinary measures in place, I of course will do so in consonance with my Secretary.

Mr. CLEMENT. Admiral, I have heard a rumor that oil tankers leaving Valdez routinely take a shortcut that avoids a large portion of the traffic separation scheme in Prince William Sound.

To your knowledge, is this true?

Admiral YOST. Well, I saw that reported in a newspaper this morning, and I saw the response of one of the local Coast Guardsmen there, that said that is ridiculous and he had never heard of such a thing. I think that the Coast Guardsman is probably right. That is a ridiculous allegation. No tanker skipper would ever do that kind of thing, and certainly we would not allow it. It is against the regs. It just would not happen.

What we have here is a master who strayed, or a third mate who strayed, not because they intended to, but because something very

extraordinary happened on that bridge, an extraordinary lapse on that bridge, that we will find out about, I hope, in this investigation.

Mr. CLEMENT. Thank you.

Mr. TAUZIN. I thank the gentleman. It is 10:30. If the Admiral will allow, I will recognize the former Chairwoman of the Federal Maritime Commission, now a Member of our Subcommittee and our Full Committee, Mrs. Bentley of Maryland, for questions, and then we will have to, under the agreement we have with the Senate, release the Admiral to appear before the Senate.

Admiral, we will, at some future date request that you return, and we can continue this line of questioning, as this cleanup progresses, and as we get closer to some of the issues we want to decide, hopefully at this Committee level.

The Chair will now recognize Mrs. Bentley of Maryland.

Mrs. BENTLEY. Thank you, Mr. Chairman. Admiral, 20 years ago this year, we made an experimental run of tankers transitting the Northwest Passage to test the possibility of transporting oil from Port Barrow to the U.S. East Coast.

I was fortunate enough to be on the pioneering trip, and I recall how the tanker became icebound on several occasions.

After viewing the horror of the Valdez destruction, I can only say that we are lucky that the Northwest Passage was ruled out. But, on that trip, the Coast Guard had a cutter, the *Northwind*, accompanying the *S.S. Manhattan*, and the *Northwind* then had difficulty keeping up because it was an old, old vessel.

You mention here that the *Rush*, which is on duty up there now, is 40 years old now. Is one of the problems the fact that the Coast Guard has not had the kind of budget it needs to build some modern cutters, so you can work on these disasters more expeditiously?

Admiral YOST. As I discussed with the Chairman, we are facing a major shipbuilding program that we have got to get into. We have got to build and replace a large part of our cutter fleet.

Fortunately, the Coast Guard cutter *Rush* is one of our more modern vessels, she is only 20 years old rather than 40, so——

Mrs. BENTLEY. That was a mistake.

Admiral YOST. That was a mistake that was made some place. She is doing a very good job up there. But the *Northwind* has since been decommissioned. We only have two polar icebreakers left in this Nation, and I cannot discharge the vital needs and responsibilities of this Nation with two polar icebreakers. It cannot be done.

Mrs. BENTLEY. What are the ages of those vessels?

Admiral YOST. Well, the two that we have are about 15 years old each, but the ones we just decommissioned were over 40 years old—the oldest active icebreakers in the world.

Mrs. BENTLEY. Now we note that the number of Coast Guardsmen you have on duty up there has been reduced rather drastically to seven people?

Admiral YOST. We took seven people out of Valdez in 1988 when we got the significant budget cuts that got to be so famous in the Coast Guard.

Mrs. BENTLEY. That is when they tried to shut the Curtis Bay Coast Guard yard, too.

Admiral YOST. Yes. But we thought better of that later.

Mrs. BENTLEY. But this is all because of those budgetary cuts that resulted from money being shifted from the Coast Guard to Amtrak?

Admiral YOST. That is right, and I have asked this board of investigation to examine, to see if the cutback in the number of watch standards at Valdez had any effect on this accident. That is one of the responsibilities of the board. But in fact we did reduce the watch by one, due to that budget cut in 1988.

Mrs. BENTLEY. Now at the time, there was some report that the Coast Guard people on duty at the time of this incident were actually trying to watch the additional traffic, or there was some additional traffic up in the Port of Valdez, so that they were not concentrating on the *Exxon Valdez*?

Admiral YOST. There were no other ships in the system at that time. The procedures of the watch provide that once the vessel is clear of the Narrows, is down at Rocky Point and discharges its pilot, that there is no further requirement for tracking by the Coast Guard.

In other words, the vessel is in clear water, it is 10-miles wide, and the procedure has been that the vessel proceeds on her own, without a pilot at that point.

So the vessel traffic service was not tracking the tanker. The procedures did not require it to track the tanker. The extraordinary procedures that I have imposed on that system after the accident require tracking the tanker to the very furthest extent of the radar coverage.

Where this tanker went aground was very close to the maximum extent of the radar. I am not convinced, however, that the vessel could not have been tracked had the procedures directed that it be tracked.

Mrs. BENTLEY. I see. Would a double bottom on this vessel have helped prevent the 10 million barrels from pouring out?

Admiral YOST. It is possible. We do not know yet the extent of the damage. It is also possible, maybe even probable, that the extent of the damage was so deep that it would have come through the double bottoms, and double bottoms would not have been a help.

Now you know double bottoms have been criticized as being counterproductive to ship stability once a ship grounds. They use those double bottoms as part of the flotation for the vessel, and once they are penetrated, you lose that buoyancy. When you penetrate a tank that is full anyway, you do not lose the buoyancy you lose when you penetrate double bottoms. So double bottoms have not been universally applauded by naval architects, or by the industry, or by the Coast Guard.

Mrs. BENTLEY. On the international tanker scene, do you have any idea of what percentage of the tankers do have double bottoms?

Admiral YOST. I will report that for the record.

[The information of Admiral Yost follows:]

The Coast Guard has no means of determining from our databases, the number of foreign tankers that have double bottoms. However, the Tanker Advisory Center in New York has advised us that approximately 12% (around 400 out of 3180 tankers)

of the world tanker fleet is fitted with double bottoms. Of U.S. flag tankships, 25% (56 out of 221) are fitted with double bottoms.

Admiral YOST. I will say a very small percentage of tankers have double bottoms, most of them now, including all of the ones in the Valdez trade, have segregated—protectively located, segregated—ballast tanks. That means they have tanks along the side that are not full of oil but are full of water, clean water.

Mr. TAUZIN. The gentlelady's time has expired.

Mrs. BENTLEY. Thank you, Mr. Chairman.

Mr. TAUZIN. The Chair will now recognize the gentleman from Texas. Mr. Laughlin.

Mr. LAUGHLIN. Thank you, Mr. Chairman. Admiral, it certainly seems that the master's alcoholic problem was one of the critical factors in this disaster, and I have read one report that indicates that some 10 hours after the accident his blood alcohol test was at .061, certainly giving him 10 hours of burnoff of that alcohol that would have been in his system at the time of the accident. Do you have a burnoff rate, that you could extrapolate, go back——

Admiral YOST. Yes. We do.

Mr. LAUGHLIN. At the time of the accident, what was that?

Admiral YOST. Yes. There is a burnup rate that we have some figures on. It depends on the metabolism, the weight of the man, the activity, and a number of other things. I do not have that figure. Neither do I know, nor has there been any testimony to whether he in fact imbibed after the grounding. So I think that I am going to have to leave this to the board of investigation and the courts.

Mr. LAUGHLIN. Assuming he didn't imbibe after the accident, certainly the fact that he was highly intoxicated to even be operating a vessel is clear.

Admiral YOST. Well, I think your conclusion matches mine, sir, in that regard. I do not want to comment on it until we get into the court situation, if I can.

Mr. LAUGHLIN. That goes to the license application for him to be a master. Is that license application one that is dated, and would the prior alcohol involvement that the master had have predated the date that he signed his master's license application?

Admiral YOST. He has submitted an application for a renewal, and has not indicated any convictions other than minor traffic violations for the previous 5 years. He had had at least two, and maybe, three DWI convictions during that 5-year period. They were not reported on the renewal application.

Mr. LAUGHLIN. Admiral, it has been my experience as a prosecutor that if you do not have that question just absolutely definite about driving while intoxicated, that this master, and others, will come along and testify that they thought it was murder by auto, or a somewhat more heinous crime than drug or alcohol involvement. And I wondered if that application to the Coast Guard is more specific than saying minor traffic violations, where he could excuse or rationalize himself away from it?

Admiral YOST. I am not pleased with the wording of the application. I have not had occasion, before last week, to examine that application in detail. I am not pleased with it. I want to tighten it up,

and I want to do exactly what you want to do as a prosecutor, and we are going to do that.

Mr. LAUGHLIN. I think the Members of this Committee can be sure the wording on that question will be changed. Is that safe?

Admiral YOST. Yes, sir. You can rest assured, sir.

Mr. LAUGHLIN. Was this master in the employ of Exxon?

Admiral YOST. Yes, sir. He was an employee of Exxon, a long-time employee of Exxon, and he had gone through an alcohol rehabilitation program funded by Exxon some time before.

Mr. LAUGHLIN. And Exxon has made all that information available to you?

Admiral YOST. Yes. They have. In fact the president of Exxon-US, Mr. Stevens, has testified—or at a press conference that I attended in Alaska last week or so—that he felt that Exxon made a mistake in returning that master to the bridge. That is Exxon's statement, and I am not going to comment on whether that was a mistake, or not. It is fairly complex, whether you take rehabilitated persons and return them to their job, or whether you do not. And if you do not, how many people are going to come forward and say, "I need rehabilitation." That is something we are going to have to look at very carefully.

Mr. LAUGHLIN. Whether it was a mistake or not, did you find that Exxon had any procedures for monitoring people with the responsibility this master was given when he was returned to work? I do not know the terminology. Is there a second mate, a third mate, that would have that responsibility?

Admiral YOST. Well, as far as I know, Exxon did not have any machinery in place to monitor this. Now the master is the master. However, the chief mate, and the chief engineer, particularly, have a responsibility, a clear responsibility, on a merchant vessel.

If the master is incapacitated, or unable to command for any reason, the Chief Mate and Chief Engineer have a responsibility to replace him, and to record in the log why they have replaced him and relieved him from command. That will be adjudicated when they get to port.

Now they better be right. But they have got the responsibility to do it. So there may be some other responsibilities here.

Mr. LAUGHLIN. Can you assure us that masters who have returned to work after a drug or alcohol abuse rehabilitation program will be monitored in some way by either the Coast Guard, or the employer, such as Exxon?

Admiral YOST. I think that that is an excellent suggestion. I will certainly look at it. I have not thought it through. But anybody who has a drug abuse history cannot even apply for a license of any kind for a period of 3 years, and then they have got to show very, very clear rehabilitation references and statements, and what have you. With alcohol, it is somewhat different because it is in fact a legal drug.

Mr. LAUGHLIN. Admiral, I think it is a courageous step when an individual goes through a drug or alcohol rehabilitation program, and I am not suggesting that they be terminated from all employment, forever. My concern is that if we are going to spend the money, such as Exxon apparently did in putting the master through the alcohol rehabilitation program, that he be returned to

work, but have some type of monitoring process so they can yank him, rather than having to go to a press conference and say we made a mistake in returning him to work.

Admiral YOST. I think that would be an outstanding and a needed corporate policy. What I need to examine is whether we, as a Government, should propose rulemaking to require that kind of thing of the corporation, or to place a responsibility on Federal officers to somehow monitor this person. That is a different question. We need to look at it. It is a good question.

Mr. LAUGHLIN. Well, you have my support on that. Thank you very much.

Admiral YOST. Thank you.

Mr. LAUGHLIN. Thank you, Mr. Chairman.

Mr. TAUZIN. The gentleman's time has expired. Admiral, our new intelligence is that the Secretary of Transportation has not yet been released from the session on the Senate side, and therefore you are being held until we have obtained his release.

[Laughter.]

Admiral YOST. I know how those people felt in Iran. I thought I was going to escape earlier here, but apparently not, sir.

Mr. TAUZIN. I would also like the indulgence of the Full Committee, as I have already obtained the indulgence of my friend, Mr. Coble, to recognize, out of order, the appearance of our Full Committee Chairman, the Honorable Walter Jones, for a round of questions. Mr. Jones is recognized.

Mr. JONES. Thank you, Mr. Chairman. I am sorry that I am a little late, but this is the fourth meeting I have had this morning, some way or other.

Admiral Yost, one or two questions, if you will, please, sir.

Exxon has expressed frustration over the clearance process that delayed its use of dispersants until they were no longer useful. Could you describe the dispersant clearance process and why it took so long.

Admiral YOST. Yes. As you know, Mr. Chairman, the use of dispersants is a very controversial issue in oil spill cleanup. In Prince William Sound, in consonance with the State Government, the sound has been divided into three areas: one area, that the on-scene commander may use dispersants at will; the second area, that the on-scene commander may use dispersants with the concurrence of the Regional Response Team; and the third, most sensitive area, where no dispersants will be used, under any circumstances, without the full agreement of the State authorities.

Now where this ship lay was between area two and area three. In other words, it was a sensitive area, and the use of dispersants had to be carefully considered. The use of dispersants, that Exxon wanted to use, was not possible without a lot of consultation. In addition, to use dispersants, it takes three conditions. You have got to have a concentrated area of oil; you have got to have a mixing of the oil;, and you have got to do it in a timely fashion.

Now none of those things were immediately apparent at the onset, except the timeliness. There was no mixing, the oil was not concentrated, and it was not in an area that dispersants would normally be used.

So a lot of consideration was done. I do not fault, and I do not think Exxon has really faulted, the on-scene coordinator. I have listened to Mr. Rawl, the president of Exxon. He has not really faulted. He has merely said if we could have used dispersants maybe it would have done some good.

In the view of the on-scene commander it would not have done any good. He tested them and he said no. And I have got to say that is a decision made in the field. I seldom, in Washington, second-guess those kind of decisions.

Mr. JONES. Thank you, Admiral. Finally, some people have criticized the decision to concentrate on removing the remaining oil from the *Exxon Valdez* because it would slow down the cleanup of oil already spilled.

Would you care to comment on this.

Admiral YOST. I do not think that there was a conflict between these two activities. The removal of the oil from the tanker was done under the supervision of the Coast Guard strike team. It was done primarily with Coast Guard ADAPs pumps with the help of other pumps that were brought on at some time later.

It did not interfere with the response to booming and skimming. The response to booming and skimming had its own problems: equipment available, isolation of the area, getting things out there, booms blowing away, a 70-knot wind coming up. There were plenty of problems that hampered the response, but pumping off the tanker was not necessarily one of them.

Mr. JONES. Thank you, Admiral. That is all, Mr. Chairman, at this time.

Mr. TAUZIN. I thank the Chairman very much, and I also again want to thank my friend for his indulgence. Mr. Coble is now recognized.

Mr. COBLE. Thank you. Thank you, Mr. Chairman. Admiral, it is good to see you this morning, unfortunately under these conditions.

Much attention, Admiral, has been directed to the skipper, Captain Hazelwood. I want to focus, for the moment, on the third mate who presumably was in command at the time of the grounding.

If you will, Admiral, tell us—if you know—if the third mate was in fact qualified to discharge the duties that he presumably was performing in the wheelhouse at the time of the tragedy.

Admiral YOST. I do not have personal knowledge, but I am convinced that any third mate of a tanker of that size, having taken the Coast Guard license, and having been hired by a company like Exxon, a big corporation, was in fact a competent mariner.

This was a competent mariner who just did not happen to have pilotage for that stretch of water. Now pilotage requires a certain number of round trips. He did not happen to have that number of round trips.

But here we have a licensed, presumably competent mariner of a major ship, one of the major ships in the world, hired by one of the major corporations in the world. I think, until proven otherwise, we have got to assume we had a competent mariner on the bridge.

There was some kind of an awful lapse on that bridge. We do not know what it was. It is almost unbelievable, that there could be a lapse of a competent mariner of that type, who would run that ship

right up on a rock in an area that is 8 to 10 miles wide, when he should have been heading past Hinchinbrook to sea.

It is inconceivable to me, and, for that reason, I appointed this board of investigation, and requested a National Transportation Safety Board investigation, to try to find out what happened on that bridge for that 9 or 10 minutes that that ship was doing 12 to 15 knots in the wrong direction.

Mr. COBLE. Well, it is inconceivable to me, Admiral. I will admit, we have the benefit of 20-20 hindsight here, but I was going to get into this—the gentleman from Alaska did earlier—but I was going to ask you to comment, but you already have, that this in fact did not involve a situation where delicate turns, and expert negotiation would have been required. "Inconceivable" is the word.

Admiral, my good friend from Alaska, Congressman Young, alluded to this a little bit, but I would like to extend it, if I may.

If you will, Admiral, tell us how a vessel traffic system works, number one, and, number two, does the traffic controller submit, or make recommendations as to course changes to a ship's captain?

Admiral YOST. The vessel traffic system in Valdez is comprised of two pieces. First, the radar center, the plotting center, and the communications center, and secondly, the traffic separation scheme that you saw drawn on the chart that goes from the Narrows on down to Hinchinbrook.

That traffic separation scheme merely provides that the vessels incoming and outgoing go in two lanes, so that they do not have any chance of colliding with each other.

Now that system is a system that we do not have any radar observation of. We have communications with the vessels in that system. They have to report in at certain checkpoints and give us their changes in course and speed. We monitor that.

And we advise them of any other ships in the system, so they know where other ships are, when they will be passing ships, and that kind of thing.

Once you get into the arm, you then transition into the area that is too narrow for a separation scheme. That is the radar monitoring scheme. Again, we plot vessels every three minutes while they are in there.

We do not allow two vessels to pass in that area. It is a one-way sort of thing, and we keep it clear until the tanker gets all the way through.

We give him reports of what he is liable to see. If we see him getting to one side or the other, we might advise him of that. But it is not a system in which we give rudder orders, or the watchstander says to the captain, come right five degrees or come left five degrees. He advises him what he sees on his radar.

It is an aid to the captain who is responsible for the safe navigation of that vessel.

Mr. COBLE. One final question, Admiral. During this period that you mentioned earlier, or a presumed lapse—eight or nine minutes I think you said—was there exchange between the third mate and the traffic system spokesman during that period?

Admiral YOST. No. There was no exchange. The last exchange was an indication from the third mate that he intended to move over into the other lane, or the northbound lane, in order to avoid

what he thought would be some ice from Columbia Glacier in the southbound lane.

And from that time, until he reported "hard aground," there was no further communication.

Mr. COBLE. Thank you, Admiral Yost. Thank you, Mr. Chairman.

Mr. TAUZIN. Thank you, Mr. Coble. The Chair will now recognize the gentlelady from New York. Mrs. Lowey.

Mrs. LOWEY. Thank you, Mr. Chairman, and thank you, Admiral. I know how committed you are to cleaning up this mess that has taken place, and we look forward to working with you and looking seriously at the review process.

Because frankly, after listening to your testimony, and your amazement as to how this could have possibly taken place, it seems to me that we have to focus on the competency of the people, and the person at the time who was steering the vessel.

And I just do not understand how someone who had his driver's license revoked three times for driving while intoxicated could have been in charge of piloting an oil tanker carrying 60 million gallons of crude oil.

I understand that the Coast Guard renews seamen's licenses every 5 years. In order for the Coast Guard to allow a license to expire, it must be determined that the seaman does not have a, quote, "suitable character or habits of life," unquote.

First of all, I would like to ask you, do you think that this criterion is too stringent? Given that Captain Hazelwood's drunk driving infractions were all committed within the past 4 years, is a change necessary in the law to allow for the review of the licenses more frequently, and do you believe this should be the prime focus of our attention as soon as we can deal with it?

Admiral YOST. Well, I think I am basically in agreement with the direction of your comments and those of Mr. Laughlin. We need to tighten up the language in those applications. Now I am amazed that a man with that kind of a background was piloting a tanker as well. I guess I was equally amazed when we found some airline pilots, in a similar check in Florida, were piloting the aircraft that you and I fly in with that kind of a record. It is because there was some fraud in making the application.

Now, how far we, as a Government, go behind a citizen's application, is a question, and I think we need to examine that when they are flying airplanes or driving supertankers.

We need to take a look and see how far we do want to go.

Mrs. LOWEY. What do you think would be a reasonable time for a review process? Do you think 5 years is sufficient? Do you think we should do it every year? Every 3 years?

Admiral YOST. Well, it is a fairly massive responsibility to examine the mariners in the United States for licenses. We do it every 5 years. To do it more often than that is going to be disruptive to the industry; it is going to require more time and effort on the Coast Guard's part.

We have 25,000 licenses per year. That is applications and renewals. Now we can do that. Because of this accident, we will want to discuss that. It is difficult, with an accident like this in front of you, to know when you are over-reacting. And I do not know. I would like to put a little time between us and the accident before I

start wrenching around mariners to examine them every year rather than every 5 years, and adding to the Coast Guard a very, very major increase in our personnel.

Mrs. LOWEY. Thank you very much, but I hope that we can address this together, because it is clear that these infractions took place within the last 4 years, and given the stress of life, I think we have to look at the time frame very seriously. Thank you very much.

Mr. TAUZIN. The gentlelady's time has expired.

Admiral, I am pleased to announce, sir, that we are now acceding to the Senate's urgent call for your departure, and while I want to give them, indeed, a chance to visit with you, we are going to allow two additional sets of questions, and we will limit them as closely as we can to five minutes. One from the Republican side and one from the Democratic side, and we will begin—I think Mr. Inhofe is next. He has passed. Mr. Goss is recognized.

Mr. Goss. Mr. Chairman, thank you. Admiral, I have listened very closely to the testimony because I came this morning primarily to hear what we need to do, what went wrong, and it appears an awful lot went wrong, and I think that we have all learned our lessons about licensing and regulation requirements. Amtrak has been mentioned today. Air line pilots have been mentioned today, and we have people on bridges of supertankers being mentioned.

And I do not think there is any argument there that we need to do a better job in that area. What I am focusing on, however, today, is a question of preparedness and prevention.

So we know we are going to continue to ship oil so we do not do this again, and I was struck by your remarks, and your testimony—and I am quoting your written rather than your spoken—that you are satisfied that this country's national response organization is working well, qualified by the severity of the spill and the remoteness of the area.

I think that those qualifications are not appropriate because we do have major tankers, we have to cope with that, and they are capable of major spills, and we also have many remote areas where those tankers operate.

So I think we have to treat those as routine rather than spectacular.

I listened to your comments, and the testimony of others, that perhaps the booming could have been done faster, that perhaps the right equipment was not on site and did not get there quickly enough, and I sympathize with you with the problems of the submersible pumps. That dispersants did not work well, and the log, the chronology we have indicates that dispersants did not. In fact there were two or three attempts.

That in fact we are going to lose about 7 million gallons of this spill, one way or another. We are not going to recover it. That our skimmers were overloaded because the oil was of a higher viscosity than we thought, or than someone expected.

That perhaps Exxon was late in its response. That perhaps we had three generals in charge, as my colleague from Alaska has said, instead of one, and et cetera, et cetera.

What this adds up to me is a rather large black list of mistakes that are all correctable, and what I am hoping we are going to be

able to do, and what I believe we must do, and what I am asking for your comment on is: Can you assist us with legislation to correct those things, so that these are not unforeseens? That these are things that we are prepared to cope with?

I am sure we will have a debate about whether it should be done by private enterprise, or whether it should be done under a Federal program. I would prefer, obviously, the former.

I think those are the things we have to tend to because this terrible tragedy has given us the opportunity to do something right, and we have got to do it.

Are those observations that I have made things that you believe are correctable?

Admiral YOST. Well, I do not have any problem with the direction of your observation.

I do have a problem thinking that perhaps legislation will correct this, quote, "black list" of things. Legislation will not correct the technology of being able to pick up oil; it will not correct the fact that oil gets viscous in very cold weather; it will not correct the fact that it is almost impossible to logistically have boom ready in all of the isolated places that tankers may be, including hundreds of miles at sea, and collisions happening.

So there are some of the things that you would like to do, and I would like to do, that legislation is not going to do. It may be a part of the cost of living in the world that we live in.

But some things need to be done, and can be done, and we ought to work closely—you and the Congress, and me and the Administration—to do those things that make sense, and not respond with legislation that may not be helpful in the long-run.

Mr. GOSS. I accept that. We certainly would do better to pass no laws than to pass the wrong ones. But what you are indicating to me is that some type of cleanup, perhaps all cleanup, may be impossible under certain circumstances, and, if that is true, then I think we have a much larger dilemma on our hands.

Admiral YOST. I would propose to you that a 1000 miles off of New York, 500 miles off of New York, two tankers colliding, each having 50 million gallons of oil, and putting 100 million gallons a 100 miles off of New York, in the middle of the winter—I do not think that any legislation, or anything that you or I would do is going to clean that up.

I do not know how to do that. We need some kind of a magnet, an oil magnet, that will pull that stuff back in the tank once it is spilled. The technology is not there to do it. The technology is there to move the oil, but not to clean up those kinds of spills.

Mr. GOSS. I appreciate your comments and I think that is part of our dilemma, and I think that perhaps part of the answer may lie in the higher motivation and accountability for those people who are responsible for the spills.

Admiral YOST. Yes. I agree with that, sir.

Mr. GOSS. Thank you, Mr. Chairman.

Mr. TAUZIN. I thank the gentleman. For the last round of questions I am pleased to recognize the former Chairman of this Subcommittee as well, Mr. Gerry Studds of Massachusetts.

Mr. STUDDS. Thank you, Mr. Chairman. Admiral, I hope you do not interpret the fact that we are going to release you to the

Senate as an indication of a premature judgment on our part of your misbehavior.

[Laughter.]

Mr. STUDDS. And notwithstanding that, I am going to be very brief and concentrate on two areas, if I may. One, liability, general questions of liability, and one question on Federal licensing for pilots.

In your judgment, who should be held liable for the damages incurred as a result of this spill?

Admiral YOST. We have held Exxon liable for it. They have agreed to liability up to this point. I would hope that we do not have to hold the taxpayer liable to some extent at the end, but so far, Exxon has taken liability.

Mr. STUDDS. I agree with you, but isn't it true that under the TAPS law, liability shall not be imposed on the owner, or on the TAPS fund, for that matter, if it is proven that the damages were caused by the negligence of the United States, or of some U.S. Government agency?

Admiral YOST. I am told that is absolutely correct, sir.

Mr. STUDDS. Given that, and given the fact that we have heard so far, I think, Exxon's president, blame the Coast Guard for not giving permission for the use of dispersants, and given the fact that the Coast Guard did not warn the tanker that it was off course, it seems to me at least conceivable, given the amount of money Exxon presumably has available to retain counsel, that under existing Federal law, notwithstanding their current disclaimers, we face the possibility that claims related to this bill could be tied up for years, if not decades to come, and that Uncle Sam could ultimately get stuck with all or part of the bill, and people who should be compensated will not be, at least for a very long period of time.

My question is, do you discount that possibility?

Admiral YOST. No. I do not.

Mr. STUDDS. Do you not agree, that that very fact is, in and of itself, a very strong argument for strengthening Federal law, to be sure that in an instance such as this, it is the polluter and not the Government that pays?

Admiral YOST. That is probably beyond my knowledge, but I do not see any problem with that. Obviously, I have not thought it through, sir.

Mr. STUDDS. That may be a more appropriate question for the Secretary, but obviously, those of us who have been trying to get such a law, comprehensive oil spill law, which we now count—I do not know—five or six commandants ago those efforts began. I do not know how many Secretaries of Transportation. I do know how many Presidents. It was a very long time ago.

Admiral YOST. The Secretary has told me that he firmly supports this, and he has asked me to allow him to discuss this when he gets here, and he will do that in a very positive way.

Mr. STUDDS. I am glad to hear that. We will ask him. Very quickly, on another subject. On pilotage, and requirements for Federal licenses of pilots in this area, as I understand it one of our problems was not so much that the captain of the vessel was on the deck, but that he was not on the deck.

We do not know what condition he was in at the time, but he was not on the deck where he should, by law, have been.

It is my understanding that in June of last year, DOT, the Coast Guard, published in the Federal Register, a supplemental notice of proposed rulemaking entitled Licensing of Pilots: Manning a Vessel's Pilots, and in those proposed rules there were some exemptions proposed to the pilotage requirements, to the requirement that a federally licensed officer be on the bridge.

And if I am correct—and this is what I would like you to tell me—if that proposed regulation of the Coast Guard's had become final, the master would not have been required to have been on the bridge when the *Exxon Valdez* had the accident. Is that correct?

Admiral YOST. Let me ask the Vice Commandant to discuss that. He is probably better versed than I am in that.

Vice Admiral LUSK. Mr. Chairman, I understand that there was indeed a proposed rule such as has been suggested here. My understanding of that is that the conclusion that Mr. Studds has just made would be correct. Had that rule become final, indeed, the master, or someone with the pilot's license would——

Mr. STUDDS. Where in bureaucratic rulemaking limbo is that rule at the moment?

Vice Admiral LUSK. I do not know, sir.

Mr. STUDDS. Well, who might, do you suppose?

Vice Admiral LUSK. We can find out, sir. I just do not know the answer.

Mr. STUDDS. Well, it is a Coast Guard proposal, is it not?

Vice Admiral LUSK. It was a Coast Guard proposal, sir.

Mr. STUDDS. Is it still a Coast Guard proposal?

Admiral YOST. It is not at this moment, sir.

[Laughter.]

Vice Admiral LUSK. It is a rather interesting thing to note, sir——

Admiral YOST. I think counsel is leading the witness.

Mr. STUDDS. I suggest that we launch a search and rescue mission, Admiral, to see if we cannot locate that proposal.

Admiral YOST. I will send out a SAR team for it. And you seem to be leading the witness here somewhat, sir.

Mr. STUDDS. Well, gosh, I thank you. I do not know what is the appropriate valedictory for someone who is being sentenced to a trip to the Senate, but we wish you well, and go as heavily armed as you can. Thank you, Mr. Chairman.

Mr. TAUZIN. Well, I hope you fare better than your proposed rule, on the Senate side, Admiral.

We are pleased now, indeed, to release you, Admiral, to the Senate.

Admiral YOST. Thank you very much.

Mr. TAUZIN. One series of requests. One, Miss Schneider has requested that the Coast Guard supply to her, in her role on the Technology Subcommittee as well, information regarding the technology issues involved in this cleanup, and if you would be so kind as to communicate with her.

Admiral YOST. We would be very happy to submit that, sir.

[The information of Admiral Yost follows:]

The technology and procedures presently being used to clean up the oil spill in Valdez are considered "state-of-the-art." Cleanup equipment and technology from around the world is being utilized in the cleanup efforts. The technology and procedures that are being used include:

Booming methods—both containment and deflection.

Types of booms—foam and air floatation barriers as well as sorbent.

Dispersants—have not been very effective.

Burning—initially effective until oil became weathered.

Sorbents—both natural organic and synthetic sorbents used; mostly in shoreline cleanup.

Skimming—skimming devices that have been used with various levels of success include weir skimmers; suction skimmers; submersion skimmers and sorbent skimmers.

Shoreline cleanup—different methods of cleaning up the shoreline include:

—low pressure, high volume salt water flushing,

—high pressure, low volume salt water flushing,

—sorbents,

—steam cleaning,

—natural flushing.

"State-of-the-Art" for the fragile shoreline environment is to proceed slowly, and with the advice of the scientific community. Heavy equipment is quicker, but has limited application since it can cause more damage than the oil in most shoreline areas.

Dispersant use for beach cleanup is being investigated.

Disposal methods—both lined landfills and incineration are being used for disposal of skimmed oil and oil-soaked debris.

Mr. TAUZIN. And secondly, I have received a request from some of the other Members who have not had a chance at a round of questioning yet, that you allow someone with the Coast Guard to stay in case there are questions we want to refer to the Coast Guard, before you leave.

Admiral YOST. I would like to leave my Vice Commandant, and when my Secretary gets here, I think you will find him very capable of answering your questions.

Mr. TAUZIN. And finally, Admiral, we are of course not going to leave it here. We want to put you all on notice that at some point in the not too distant future we want a wrap up session. We would like you to return at your convenience—we will schedule a time for you—where we can get a full report on what indeed has happened. What changes are you prepared to recommend to us following your board of inquiry, and, indeed, whether or not this thing is going to be concluded successfully, or whether we need some continuing legislation to deal with it.

Admiral, thank you, again, and to all of your staff. I know these have been trying times for you, for your staff. Be assured that this Subcommittee is not going to allow people to beat up unmercifully upon you when they have not resourced you properly in this and other areas. Thank you.

Admiral YOST. Thank you very much, Mr. Chairman.

Mr. TAUZIN. The Chair now calls the Honorable Steve McAlpine, the Lieutenant Governor of the State of Alaska, and the Honorable John Devens, the Mayor of the City of Valdez to the witness table, with the understanding that, for the Committee's purposes, that we will continue receiving testimony. We will continue, by the way, with the line of questioning, rotating as we have begun until we have completed a round, so that those of you who have been waiting will have a chance for questions.

And we will continue until noon, when we will take a short half-hour recess. Should the Secretary of Transportation arrive at any time, we will interrupt the hearing at that point to take his testimony so that we can indeed get to a round of questions there.

The Chair now recognizes the Honorable Steve McAlpine, the Lieutenant Governor of the State of Alaska.

Lt. Governor MCALPINE. Thank you, Mr. Chairman.

Mr. TAUZIN. The Subcommittee room will please come to order. I recognize that we have tight quarters, and I hope you understand that even background noise interferes heavily with our meeting.

I understand the Secretary is here now? Would the Secretary of Transportation please join this panel, and Lieutenant Governor, if you do not mind, we will defer first to the Secretary.

Lt. Governor MCALPINE. I certainly do not mind, Mr. Chairman.

Mr. TAUZIN. Thank you, sir. He is somewhere out there, having a transportation problem getting to the room, obviously. I am told he is not. We will proceed. Somebody looked like him in the back of the room.

We will proceed now with the testimony of Lt. Governor McAlpine. Welcome to the Committee, sir, and we are pleased to receive your comments. Again, your written statements will be made a part of the record, if you would care to summarize those comments to us.

STATEMENT OF A PANEL, CONSISTING OF STEVE McALPINE, LIEUTENANT GOVERNOR, STATE OF ALASKA; AND HON. JOHN DEVENS, MAYOR, CITY OF VALDEZ, VALDEZ, ALASKA

Lt. Governor MCALPINE. Mr. Chairman, I am hereon the invitation of the Committee to appear in the absence of the Governor, who did not feel that he could leave the State of Alaska with the ongoing cleanup. His commissioner of Environmental Conservation agreed with the Governor that the cleanup had to be the first priority. If you will please excuse his absence, he will at some future time be more than happy to meet with the Committee.

I would like to make a couple of statements about previous testimony that was made.

Number one, I am very pleased to hear the Coast Guard say that it was ridiculous that some mariner may be attempting to navigate the waters between Bligh Reef and Reef Island. If I may, there used to be a ship channel that went right through here during the old steamship days, and the speculation among the townsfolk in Valdez was that was, of course, exactly what was going on. That it would in fact take a cowboy, to some degree, to attempt something like this.

It is purely speculative on the part of anyone who would make that assertion, but as Admiral Yost indicated, it is absolutely inexplicable that a trained mariner could put a supertanker up on that reef.

That reef is perhaps the most notorious hazard in all of Prince William Sound. I used to fish in those waters. I lived in Valdez. I am John Devens' predecessor as the Mayor of Valdez, prior to becoming Lieutenant Governor.

There is not a kid in that town who borrows a motorboat from his dad, who does not know that Bligh Reef is there, and what dangers it would pose to a ship the size of the *Exxon Valdez*.

It is totally unbelievable that that ship hit that reef. Now, having said that, we have, over the past several years, dealt with Alyeska Pipeline Service Company as well as the owner companies, and time and time again, we have been told that there very probably would not be a spill of this magnitude.

In fact the Members of this very Committee have no doubt been told the same thing.

The Admiral indicated that they had not ever been prepared to address a spill the size of the spill that was incurred in Prince William Sound on March 24th.

I am holding in front of me a Prince William Sound tanker casualty, asking Alyeska Pipeline Service Company to respond to a scenario of a spill in Prince William Sound in the amount of 200,000 barrels. Recall that this particular spill is 240,000 barrels. The response begins immediately, that Alyeska Pipeline Service Company believes it is highly unlikely a spill of this magnitude would occur. Catastrophic events of this nature are further reduced because the majority of tankers calling on Port Valdez are of American registry, and all of these are piloted by licensed masters or pilots.

That is their opening salvo as to why they probably need not even address this. Let me indicate to the Committee that the State of Alaska is very, very unhappy. We are extremely unhappy with the promises that were made, and the promises by Alyeska Pipeline Service Company that appear to have been broken.

Now Alyeska says that they followed the contingency response exactly as it was set out, and I daresay, ladies and gentlemen, if I were looking down both barrels of a major law suit, and the liability that this entails, I think that I would probably be singing that same song.

Many of us who went to the site, many of us who saw what occurred on that day, saw the response that was made to it, or the lack thereof, cannot concur in that position.

The response was minimal. The response in every oil spill contingency plan requires that they first contain the oil. Even this scenario sets out sending booms and vessels to contain the oil.

For more than 35 hours after the oil hit the water, there was no attempt made to contain the oil. I met with Admiral Nelson who was the area commander. I met with Commander McCall who is the on-site Coast Guard commander. I met with Mr. Iarossi who is responsible through Exxon, for the cleanup project, and with other individuals, and I posed the question to Mr. Iarossi: "Why wasn't the ship boomed?"

The response was that even if we had the opportunity to make that decision today—and we are talking on Sunday night after three full days of ideal weather, flat, calm conditions, perfect for the mechanical recovery of oil, and conditions, by the way, which rarely exist in the springtime in Prince William Sound.

He said that "If I had that decision to make now, I may not even make it now," and I asked him why, because obviously they had not boomed the ship for several hours after the spill.

He said his concern was that if they got all of those hydrocarbons in the same location, the fumes may cause an explosion.

Well, two months ago, a ship was in Port Valdez and it began to leak, and the first thing that they did was to boom the vessel, and they managed to recover all of the oil, or the vast majority of the oil, that leaked from that vessel.

And they took what could have been a tragic incident for the oil companies, predating this incident by some two months, and turned it into a fairly good PR stroke, because they were able to say "We do have the capability to meet these types of situations and we do have the capability to respond in an adequate fashion."

I have absolutely no idea why the vessel was not similarly boomed in this particular instance, but always, it has been the position of Alyeska Pipeline Service Company, always it has been the position of the oil companies, always it has been the position of the State of Alaska, that the first, the primary, and the best method of recovery of oil is from the surface of the water, taking it out of the water and disposing of it at a later time.

It appears that at least in the scenario that is presented for the 200,000 barrel spill, at least some utilization of dispersants is going to be required, and there exists a pre-approval, as the Admiral indicated, for zone one utilization of dispersants.

In my meeting with Mr. Iarossi, I asked the question, "Why haven't dispersants been used heretofore?" And remember, we are talking late Sunday night. It is around midnight, into Sunday, Monday.

And he said that even if they had permission to use the dispersants, they could not have used them because of the flat, calm conditions. They need turbulence in the water in order to allow the dispersants to mix with the oil.

Mr. Iarossi said that they had received permission late Saturday to go ahead with an operation beginning Monday morning because the winds were going to change. And of course the winds did change that night. They blew at some 70 miles an hour.

The next morning some official said to me, "It is really tragic that the weather conditions have shifted to the degree that they have."

I turned, and I said, "Sir, what you are witnessing right now is typical weather in the springtime in Valdez, Alaska. What you have had pass you by is an absolutely perfect three days of grace in which you could have engaged in a fairly major cleanup operation, and got some of that oil up off the water."

Let me conclude my opening by just saying one thing, and that is expressing the mood of the people of Valdez, Alaska, a community that you could have polled 5 years ago and which would have shown 92 percent favorable disposition to the oil companies and to the operation there.

The one word that I heard more than any other word when I was home was "betrayal." "We've been betrayed." And, ladies and gentlemen, as policy-makers in this Nation, certainly as policy-makers in our State, and policy-makers at the local level, we are going to have to take away the trust that we have held heretofore and begin to undertake the action ourselves. Thank you very much for the opportunity to appear here before you today.

Mr. TAUZIN. Thank you, Governor. I will now recognize the Mayor of the City of Valdez. Mayor Devens.

STATEMENT OF MAYOR DEVENS

Mayor DEVENS. Thank you. I appreciate this opportunity to speak before this Committee. I also appreciate the very sympathetic comments that Members of this Committee have made.

We are very upset by the things that have happened to us. I do want to thank, and mention the Congressman from Washington. I think that he best summarized what is most on our minds right now.

We are not trying to place blame. That is somebody else's job and that will be taken care of as we get into this. But right now, we have people that are suffering, and they are suffering greatly, and we need some help.

And we are calling on the Federal Government to try and provide us with some help. We appreciate the fact that there have been individuals from Washington that have been sent to Alaska, but we hope that the message that they bring back, that this is truly a disaster, had this same disaster occurred off Long Island, or off LA or San Francisco, I guarantee you that a declaration of disaster would have been called. But it happened in Alaska, and we did not get the declaration of disaster, and we need it. We need some help for the people that are going to be suffering in Alaska.

The fishermen, the business communities that are not going to have the income this year. We are going to have people that are going to be losing their boats because they will not have the fisheries income.

We know that Exxon has agreed to settle all reasonable claims, but how soon will those claims be settled? We need some low-interest loans in Alaska that will allow these people to hang on until this settlement is made. We really need this from you, very desperately.

Valdez is a community of 3600 people on a year-around basis. Our population goes up during the summer-time because of fisheries and because of tourism.

We have, for a number of years, recognized the finite nature of the oil industry. The day will come when the oil will run out. We have tried to develop other industries to take the place of the income that we have had from the oil industry when it runs out.

The income that we have tried to develop is in the area of tourism and fisheries. This is a disaster to us. Twenty-five percent of the Nation's oil comes from this small community that has been referred to as very remote, rural Alaska.

We have always supported the oil industry. We will continue to support the oil industry, but we want some regulations and some restraints placed on this. We want the oil industry to live up to their responsibility to us right now.

We are concerned about our neighboring communities. Cordova, Alaska is a fishing community. They are devastated by this. I spoke with their Mayor just before I came, Erling Johansen [phonetic]. He was emotional. He was shaken to the quick because his community will be destroyed by what is happening here.

We have the two native communities, Tatitlek and Chenega [phonetic]. Their entire way of life, their culture, could be destroyed by what is happening here. Whittier, Seward, Homer, Kenai, and Kenai Borough are all going to be affected because of their income.

The Mayors' Conference of Alaska met during all of this. They are asking for a task force to be formed to look into this. I have comments that I was going to read, but I do not think time allows, from the other mayors of the communities that are affected. But we are all concerned, and we are primarily concerned because of the economic impact that we are facing.

We have been talking about—I heard the Coast Guard refer to how we are trying to protect the sensitive areas of Alaska. Right now you have 800 miles of sensitive area that has been impacted by this.

You have all seen the videos that have been on television. I brought pictures that I think most of you have. We have passed out—I do not know—upwards towards about 30 of these pictures.

These pictures were taken approximately 15 hours after the incident. I think if you will look at the pictures, you will notice in these pictures, 15 hours after this incident occurred, you see no booming, you see no other ships in the vicinity, except in this one you will see that the Exxon Baton Rouge is now pulling into line to try and get over and do some lightering.

That was 15 hours after. Had we taken these same pictures three days after, they would have changed very little. There was very little done during the first three days.

Lt. Governor McAlpine spoke to this just a moment ago. We wasted three excellent days in Prince William Sound when some mechanical pick-up could have been accomplished.

Now the excuses that are given is that we did not have the skimmers available. Well, I remind you that skimmers are available elsewhere. Why doesn't the oil industry have skimmers available in one of the most sensitive areas in the world?

I will conclude my remarks by summarizing. If you really want to help Alaska right now, our communities desperately need some Federal assistance. We need some low-interest loans, somebody to cover us until our businesses can settle with the Exxon company.

We want this cleanup accomplished. I hold that 4 percent of the oil has been picked up. That is pathetically poor. Our beaches are inundated. We have thousands of birds and animals that have died in this, and we need some help, and we need someone to put the pressure on and get this done.

And finally—and I know this is primarily the interest of this Committee—but standards have to be developed. We have got to have some protection, and I do not know that we can have the trust that we have always had in the past, that industry is going to take care of us. I think Government has to be ready to respond to these kinds of spills. We cannot afford to have this happen again. Thank you very much.

Mr. TAUZIN. Thank you very much, Mayor, and if you have additional statements from other mayors, they will readily be made a part of the record upon submission. That will be without objection, if you will kindly provide those to our staff.

Mayor DEVENS. I will, and I appreciate that. Thank you.

Mr. TAUZIN. Thank you, Mayor. Gentlemen, if you would make room, perhaps, we will now invite the Secretary of Transportation who has arrived from his Joseph Conrad trip to the Senate, and we now welcome our new Secretary of Transportation, Mr. Samuel Skinner. Mr. Secretary, we are pleased to have you here today.

We know that these are trying times for you and the new Administration, and Transportation. This is your first appearance before our Committee, and we wish that we were in better times and occasions than this, but we welcome you, and we invite your comments, first, about this tragedy in Alaska.

STATEMENT OF HON. SAMUEL K. SKINNER, SECRETARY, U.S. DEPARTMENT OF TRANSPORTATION

Secretary SKINNER. Thank you. Thank you, Mr. Chairman. First of all, let me say that I appreciate the fact that the Committee has moved so quickly to deal with this issue.

As you probably now know, I did travel to Alaska a week ago Tuesday, to view, firsthand, with Administrator Reilly and Commandant Yost, not only the situation on scene, but the environment in which this catastrophe took place.

Having never been to that part of Alaska, I was impressed with its beauty. I also was impressed with the enormity of the spill.

Ten million gallons is not only the largest spill in domestic history, but it is one of the largest in world history. Most of that spill occurred in the first five hours, and almost all of the 10 million gallons was in the water within the first ten.

It is quite clear to me, as the Mayor has indicated, that the contingency plan that was in place, and approved by various State and Federal offices, was not nearly adequate to deal with the problem, even if the cleanup program had been put into place within the five hours the plan had anticipated.

It is beautiful, but it is somewhat remote. The logistics of supporting Valdez and Cordova are not insignificant, and it appears to me that, as we look in hindsight, we will make some significant recommendations. The President has already ordered a review of the contingency plan process. That report will be back to him within the next couple of weeks, to make sure that we are doing everything we can to learn from this experience.

But now, we are faced with an enormous event that we must deal with, I think, on two immediate fronts. Number one, to make sure the damage to the environment and the industry is contained as best as it can be in this situation.

It is a very difficult problem to contain. There is no magic answer. There is no wand, no—you know—million dollars of expenditures, or the expenditure of the efforts of thousands of people that will automatically guarantee that this problem will be controlled. We must contain it.

We are looking to the industries of Alaska, the fishing industry, officials from the State of Alaska, for their advice on what areas need to be protected.

My assessment is that, to some degree, those efforts on protecting the fish hatcheries have been somewhat successful, but we now

have oil on all of the islands, and, in addition to the impact it will have on the fishing industry, which is impossible to predict at this time, we have an environmental effect that is going to take months to correct.

It is fortunate, in some respects, that the tanker was owned by a major company which has major resources. It is our responsibility to make sure that those resources are properly deployed, and as quickly as possible. That is a problem, and a challenge that we are attempting to deal with on a daily basis, and as the oil moves, the target moves, and we must be ready to react.

The second issue is one that the Mayor, and I am sure the Lieutenant Governor, discussed before I arrived. The issue is the impact on the industry in Alaska. We have discussed that with the President, personally. I have discussed that with the senior officials of Exxon with whom I am in daily contact.

I have indicated to them that it is, in my opinion, not only as Secretary of Transportation but as someone who was in private practice not too long ago advising corporations of this magnitude, that it is in their best interest, given the clear liability that exists here, that they make every reasonable effort, as soon as possible, to assure the industry in Alaska—particularly Valdez and Cordova, and those other communities that may be affected—that the promises of fair restitution for any damages is real, not illusory.

That continues to be a top priority of mine. I spoke with the president of Exxon last night about my suggestion to establish, immediately, a fund that would immediately be available for restitution to the industry.

It is clear that it is impossible to predict, with any degree of certainty, the impact on the fishing industry. I suggest that we must work and, I think and I am hopeful, we will have some program in place in the not too distant future that will assure the industry that if they make reasonable claims that they will be protected, and that their vessels, their families, and their communities will be protected.

And I look forward to reporting back to this Committee in the future on the progress of that. If we do not see that, it will be my recommendation to the President that we take other steps, quickly, to ensure that those industries will not be impacted, and will not be financially strapped.

Now let's go to the issue of what we can learn from this. We can learn from the response that the contingency plan was not adequate. It dealt with a spill one-third the size of this one. We have to do better and improve that, and Administrator Reilly and I are charged with the responsibility of responding to the President with recommendations in the very near future.

Number two, the legislation that exists on the books today does not go far enough in assuring that the industry and the people of Alaska, and other States, are protected in the future on a spill of this magnitude.

This Committee has worked diligently with the Department of Transportation in putting together spill legislation in the past. I think that effort must go forward. We must reach closure with the Senate and get some meaningful liability legislation on the books that; fixes liability both domestically and internationally; allows

for collection of those judgments; and creates a sufficient fund, that if this were to happen again—heaven forbid—and it were a small company with no real assets, that restitution would be made, based on that injury, to those injured parties.

With that in mind, I would entertain questions. I am accompanied by Vice Commandant Lusk who will also answer any questions that you might have of a particular nature.

Mr. TAUZIN. Thank you, Mr. Secretary.

Mr. Secretary, right before you arrived, we heard from the Lieutenant Governor and the Mayor of the City of Valdez, and both have indicated that for three days, under absolutely ideal conditions in Prince William Sound, that booming operations could in fact have contained a great deal of the oil, in their opinion, and that obviously responses were not quick enough to take advantage of that good weather in booming that oil.

You have been there. You obviously have been in contact with Exxon officials. Can you comment on that assertion that the Governor and the Mayor have made?

Secretary SKINNER. Well, first of all, I have talked to the experts on this subject. I do not pretend to be an expert, although I have interviewed and put on the stand expert witnesses for years.

In my opinion, the best time to contain a spill of this magnitude is within the first few hours. Once it gets out, you must protect the spill and protect the areas that are designated sensitive areas with protective boom. Then you must put sorbent boom into place to recover some of the oil.

But considering the massive area that this now covers, to think that we can boom and skim this in short order, I think, is unrealistic. Every expert tells me that. The best example I can think of is, take this floor out in front of us, if that was the water, drop a pencil in there, and say, "That's the impact." All the booming we could possibly conceive would have, as far as the area that it would enclose would be that pencil on the floor. So you have got to be sensitive on it.

Skimming is most difficult at this stage. Skimming works best when you have a heavy slick and it is contained. Skimmers, at best, work at 500 gallons an hour. We are talking about 10 million gallons that is now spread all over Prince William Sound. What we are in for is a protective booming effort, and skimming where it can be done. There are virtually dozens of skimmers, either there or on the way, sorbent boom around the protected areas, containment boom where appropriate, and a constantly moving target, as weather dictates the flow of the oil.

So, it is not an easy problem at this stage. It is not one that is subject to quick fixes. We are in this for the duration. The Administration recognizes that. Every available resource that needs to be placed in Alaska under the United States Coast Guard is there.

I have literally said to the Coast Guard, we cannot let budget or other things get in the way; let's make the all-out effort necessary, and we virtually have a good portion of the Coast Guard available or working on this problem. If we need additional resources, they will be there, and I have confidence that the House and the Senate will help me through my budget problems, if that occurs later on. That is not going to be a problem.

Mr. TAUZIN. I am not at all questioning whether this thing is out of hand now, that booming cannot accomplish a cleanup, or that we are not doing everything we can now. The question is one raised by the Governor and the Mayor: Did Exxon drop the ball in the first three days when booming could have been effective? And in regard to that, if it is true that they dropped the ball, what is wrong with our response mechanisms that allowed this spill to get out of hand, and become as big a mess as it is today?

Secretary SKINNER. The answer to the first question is yes, the industry—not just Exxon—the industry has a responsibility up there, and the industry response was not on time, and not consistent with the plan, and the plan itself was inadequate to deal with this problem.

As Governor Cowper told me, when I met with him in Alaska, for the first three days there was not a coordinated effort, and that was the basis for his request for federalization. He withdrew that request and said we should hold that in abeyance, because he told me personally, on Monday night, that he believed it was beginning to come together, and that the resources necessary to marshal in there were there, and that they were beginning to go into place.

He has not made a new request, as you know. The problem is changing as it moves. His observations and request are being evaluated on a daily basis by us. We have never said we would not change our response as the problem changes, but the industry needs to go back to, frankly, to ground zero, and reevaluate how they are going to deal with a spill of this magnitude, and I think we are going to learn at the Federal Government level as well.

Mr. TAUZIN. One final one, and we are going to start a round. In your opinion, as Secretary of the Department of Transportation, have we resourced our Coast Guard adequately to deal with spills of this nature?

Secretary SKINNER. Well, there is no question that—and I have said this in my confirmation hearing—we have asked the Coast Guard to assume new missions and we have not properly funded it. A significant Member of the Budget Committee from the House—a very significant Member—told me in a hearing that I had on appropriations, that he admitted that he had shortchanged transportation in general. "Shortchanged" is not the right word. I do not want to put words in his mouth.

That he had cut the budget significantly, of the transportation-related agencies, including the Coast Guard. So, that is a problem we are going to have to deal with in the next budget cycle. The President has recognized it and asked for more funding.

Right now, however, we are really just putting resources in there, even though I recognize I am going to have some severe budget problems as a result, but we will deal with that at a later date.

Mr. TAUZIN. Thank you, Mr. Secretary. Governor, one question. I have been told that the City of Valdez and the Alyeska Pipeline Company applied for a permit 3 years ago to build a warehouse to house barge, and additional cleanup equipment. Was that permit denied, and, if so, why?

Lt. Governor MCALPINE. Prior to 1981, Mr. Chairman, Alyeska Pipeline Service Company maintained full-time personnel who

acted much as a fire crew. Their duties were to shine the equipment, go out, engage in drills, and testing, and that sort of thing.

And at about that time some consideration was given that they no longer needed the strike-force type of group, and they disbanded it and chose, rather, to train, in house, the operational personnel there at the pipeline terminal facility.

At that time, I was the Mayor of Valdez, and John Devens was on the city council, and as a matter of fact, just about a week or 10 days ago, we were engaged in a discussion about how we had been concerned about that, and we made an offer to warehouse—it was not seeking a permit—but, literally, warehouse all of the types of material that would be necessary to attack a large-scale spill.

Booms, dispersants. We were told that would be a tremendous waste of city money.

Mr. TAUZIN. Who told you it would be a waste——

Lt. Governor MCALPINE. Alyeska personnel, and I prefer not to use a name. I have a specific person in mind right now, but I would hate to use his name if in fact he was not the one.

But when a private industry comes to an elective body and tells that body not to spend money, that in fact it would be a waste of spending money, you can imagine how that affected members of the city council.

Mr. TAUZIN. Governor, there is some confusion in the facts we have. We were speaking of an incident in 1986, where the city and Alyeska combined in a permit request that we heard was denied, and that sounded strange to me, and I wanted to know if you had any information on that, Mayor.

Mayor DEVENS. I think maybe what you are thinking of is 1986, or 1987, the City of Valdez imposed an increase in tax on the Alyeska facility. That increase in tax was to be used for doing exactly what the Lieutenant Governor described back 7 or 8 years ago. We wanted to stockpile the materials.

We wanted to have emergency measures in place in the event of a major spill. We did not feel that we received much cooperation at that time from Alyeska, but it really was not their decision to make whether or not we would do that or not.

It was a tax that we imposed on them, and, quite frankly, that was challenged by the State of Alaska because there is a State statute that prohibits taxing the oil industry at a rate higher than you tax the general public.

Mr. TAUZIN. So that it did not happen, then. The State of Alaska opposed an objection to the city and Alyeska going forward——

Mayor DEVENS. Yes. Actually, we did impose the tax. We have taxed for 3 years, but that has been kept as a separate fund and it is being challenged right now in the courts.

Mr. TAUZIN. So it was never used to accomplish the purposes of warehousing and accumulating this cleanup equipment?

Mayor DEVENS. That is correct.

Secretary SKINNER. Mr. Chairman, I know we have got a panel here, but I really am due at the White House. I wonder if the Committee could entertain the questions for me. Then I can go to the White House and deal——

Mr. TAUZIN. That is fair, Mr. Secretary. We will do that right now.

Secretary SKINNER. Thank you.

Mr. TAUZIN. I will start—so that everyone will know—by recognizing the Ranking Member from Alaska. We will go back to our Chairman, and then we will go in the order in which we left the round earlier.

We will also recess at noon, so keep that in mind with your questions. We now recognize the gentleman from Alaska. Mr. Young.

Mr. YOUNG. Mr. Chairman, again, in deference to the other Members I will not ask that many questions. I would like, though, Mr. Chairman, to thank the Secretary for his trip with Admiral Yost, and of course Mr. Reilly, and their presentation, and their conduct. And the President of the United States.

I am a little concerned that some people are possibly thinking about using this for political reasons, or use it for political purposes. I think that is a very misguided thing to do, and we appreciate your interest and your comments. I would suggest one thing, Mr. Secretary. As the Secretary over the Coast Guard, the smallest of all your children, that you properly feed that agency in your budget request.

And I talked to the President yesterday, and I am confident that will happen. I am not saying this to you, personally, Mr. Secretary. I am just saying over the years there has been a tendency—mass transit has a better priority than the Coast Guard, and I have said the Coast Guard has been charged with tremendous responsibility, and yet this Congress has not funded adequately, and in fact the Secretary has not asked for adequate funds. So, that is just a little comment.

Secretary SKINNER. OK. As you know, I have asked for additional funds, and I have asked that Amtrak and mass transit be cut back, so——

Mr. YOUNG. Thank you.

Mr. TAUZIN. The Chair now recognizes the Chairman of our Full Committee. Mr. Jones.

Mr. JONES. Thank you, Mr. Chairman. Mr. Secretary, it is a pleasure to meet with you today, and I look forward to our future negotiations and conferences.

Secretary SKINNER. Thank you, sir.

Mr. JONES. Mr. Secretary, the comprehensive oil spill bill which I introduced three weeks ago with 41 co-sponsors would have given damaged parties the option of asking for compensation from our Federal funds, if Exxon delayed in meeting these claims.

Under these circumstances, is it safe to assume that the Bush Administration would support our comprehensive legislation?

Secretary SKINNER. We do support comprehensive legislation. The Department of Transportation under the Reagan Administration, while not sponsoring it, was intimately involved with the Committee in working on it. As you know, it is a very difficult problem. We have got a risk of international spills in the future, and there is no protection for the people of the United States from a spill by an international tanker. We need legislation that is very far-reaching. We look forward to working with you on it. I told the Senate, in my confirmation process, that I looked forward to working with them on it. We do have a disagreement, as you know, on preemption and the protocols.

We feel very strongly that the protocols, an international agreement that is enforcable internationally, is absolutely essential, and that the Exxon situation, as tragic as it is, would be even more tragic if we had not a company with the wherewithal of Exxon to deal with this problem.

So we must have that, and we must have it soon. I think one of the results of this will be such legislation.

Mr. JONES. Thank you, Mr. Secretary.

Mr. TAUZIN. Thank you, Mr. Chairman.

I want to echo the Chairman's comments, that we are going to be assisting him in every regard to move that legislation forward, and we would appreciate your agency's assistance in every respect.

We will now recognize the remaining Members of the Subcommittee who have not yet had a chance to ask questions, and then we will come back and alternate again.

The gentleman from Florida. Mr. Bennett.

Mr. BENNETT. Mr. Secretary, we have had testimony here today that there is a need on the part of the average people, people in Alaska, for some sort of emergency assistance, like low-rate loans.

Are you going to ask the White House for a declaration of emergency so that this can occur?

Secretary SKINNER. Well, we are going to find a program that is going to make sure that the people of Alaska are protected. If that is the best way, that is what we will do. There are a couple of other alternatives that, frankly, may be more effective, and they are being discussed as well.

My personal opinion, Congressman, is that if Exxon could immediately post a fund, under some kind of trustee, of a significant amount which would then process claims on a regular basis, and possibly a loan fund of some type against those claims, that might be the quickest, most efficient way to do it.

That might be, frankly, quicker and better than some Government program, depending upon how it is implemented and how long it takes.

So I think we have got to find an answer to the problem, and that the solution may be some private sector immediate demonstration of intent. If not, we will have to go the Federal route.

Mr. BENNETT. It is my recollection, that when we have terrible frosts that kill off our oranges in Florida, or we have a hurricane, that the President declares an emergency.

I remember going with Lyndon Johnson to Jacksonville, Florida—my home town—right after Agnes had devastated our coastline.

And I do not see a reason why the people of Alaska should be treated differently, and therefore, I think that something ought to be done with a greater sense of urgency, using the facilities that are now available. To invent a new method of doing it would seem to me to be not very kind to the people of Alaska.

So I urge you very much to ask that an emergency be declared, and that you go under the laws that now exist, which allow low-interest rates. That may be the real answer, because if the people borrow at low interest rates, and if they get a claim against the company later, then they will be not too badly hurt. But if they

wait for a putting together of a parcel, I am afraid it might not occur.

The next question. I would like to observe, as an erstwhile former lawyer—-and I listened to what I heard about the application, and the application, as I heard, said where there—anything which has happened to you in your affairs with the Government, other than minor traffic accidents. Well, a person who is an alcoholic—I am not an alcoholic and I have never had a drink in my life—but any person who is an alcoholic is asked the question of whether he has had any problems with the law, other than minor traffic accidents, is going to make a DWI in that group, that he does not have to report. I think you have to ask him specifically: Have you ever been charged with a DWI, and what was the disposition of the case?

And as I read the forms that are put out from the Government, they seldom ask it that way. They usually ask it—"a minor traffic accident." And any alcholic is going to say, "Well, DWI is a minor traffic accident." So that ought to be corrected, and I think it ought to be done promptly.

Secretary SKINNER. I agree.

Mr. BENNETT. The third thing is a research matter. I am not familiar with oil, really. I did hear words like "dispersant," which sounds like just moving around, out, getting it away, and then I heard something about "sorbent." As a guy who has walked the beaches from early life, of Florida, and have seen the oil in its gelatinous state, after it goes through the water of the sea—is there any research underway to make oil harden and go to the bottom as a non-pollutant? That would seem to me to be the best answer, having stepped on all this oil in my youth and older days.

Secretary SKINNER. The environmentalists tell us that by taking oil and sinking it, it causes more long-term environmental damage than if you use dispersants on the surface, and dispel it.

Mr. BENNETT. Well, I do not know. What I am talking about is research that might be able to contain it. After all, there are people today who are taking the most horrible poisons and making it into things that do not poison the environment.

That being so, since oil is not a horrible poison, it would seem to me there would be some way to accelerate this coagulation and make it hit the bottom. And if it were like a rock, and did not actually hurt the water, it would seem to me that that would be a very good answer to oil.

Secretary SKINNER. Well, I will check on it, but the conventional wisdom, I understand, is by sinking it—like you talk of, you have spoken of—that causes more long-term damage. But I will look at it, and I will report back to you.

Mr. BENNETT. Thank you very much. That is all I have, Mr. Chairman.

Mr. TAUZIN. The gentleman's time has expired. The Chair will recognize, again, those Subcommittee Members who have not had a chance yet. Mr. Brennan of Maine.

Mr. BRENNAN. Thank you, Mr. Chairman. Earlier, there was much discussion about the apparent cause of the accident in regard to the sobriety of the captain and his alcohol blood content, plus his conviction record and the like. And also, there was some testi-

mony by Admiral Yost that it is sort of a 10-mile wide channel, and I think I heard him on television say a child could drive a tanker up through there.

Well, my question is: What was the condition of the other members of the crew? Were they tested for blood alcohol or drugs like the captain was?

Secretary SKINNER. It is my understanding the third mate and the second mate were tested, and they were clean. They did not have an intoxication problem.

Mr. BRENNAN. OK. Secondly, there were some comments in the newspaper where some were trying to foist some responsibility on the Coast Guard, and there was an indication there were three members of the Coast Guard on duty that night, and they likewise were tested for alcohol.

What were the results of those tests?

Secretary SKINNER. I have not seen the results of those tests, but I do not think there has ever been an allegation that any of the people at the Coast Guard duty station were impaired in any way.

Mr. BRENNAN. I wonder if the Admiral could give us the result of those tests.

Vice Admiral LUSK. The only thing that I know about that is that our people who investigated it said that in no way were our people in any way impaired at the time of the accident. There was some suggestion that the VTS watchstander, who was tested a number of hours after he got off watch, did have some alcohol in his blood. He had also just finished eating dinner with his wife, and they had a cocktail for dinner, or something like that. I heard that.

Mr. BRENNAN. What was that blood alcohol content, the number?

Vice Admiral LUSK. I do not know, sir, but our people did. Those who investigated it up there on the scene did say that it was not related in any way. That is, there was no impairment and no alcohol when he was on watch.

Mr. BRENNAN. The pilot that left the ship—I understand at 11:30 p.m.—he was on the ship about two hours and a half, or so. Did he make any observations in regard to the condition of the crew or the captain?

Secretary SKINNER. Let me say this, Congressman. The National Transportation Safety Board is charged with the responsibility of reporting on a full and complete investigation of this matter. They are the source; they are there at the request of the Coast Guard to conduct this investigation. They are the source of the facts, rather than what we read in the newspaper.

And it has been my practice—I am trying to cooperate—but it has been my practice not to comment on investigations of the National Transportation Safety Board until they are over because if you do that, you may be commenting unfairly.

And frankly, you may be commenting on information that you do not have firsthand. The National Transportation Safety Board shares information with us when their investigation is complete.

They are an independent agency, and so I think we ought to, on that position, wait. I think we will get a complete report. They are on it all over the place, and as soon as that preliminary report comes out, they will render an oral report and we will share it with

you. So, I think it is dangerous to speculate on newspaper comments until I see the NTSB report.

Mr. BRENNAN. Finally, there has been some discussion and some confusion in regard to whether or not the ship itself was within radar range. At one time it was reported that it was not, and now it apparently is reported that it was. What is the official position of the Department of Transportation on that?

Secretary SKINNER. The issue is, number one, is it within range?, and number two, is it under positive radar control? If I can equate it to aviation. If you file an instrument flight plan, you are under positive radar control and that airplane is directed and guided by radar controllers.

If you are under visual flight rules, you are at your own pilotage. This ship was under VFR-type conditions. They had a pilot on board who got off, who took them through the channel.

They were in contact and the radar did go down about as far as necessary to cover that point. But they were not under positive radar control. The Coast Guard was not and does not give orders on which direction to go, but it appears they may have been under range of the radar.

Mr. BRENNAN. One final question. Are there any policies within the Department, in reference to dealing with the pilots on these ships, that they have any responsibility in reference to making observations in regard to the condition of the crew that they turn the ship over to?

Secretary SKINNER. That is a good question. Those are State pilots. But I think that that is something we are going to want to look at. They are an independent person on the ship who could give us an indication of any problems, and we should work out a mechanism with the State. If they see something they should report it. I think that is an excellent observation.

Mr. BRENNAN. Thank you.

Mr. TAUZIN. The gentleman's time has expired. The Chair now recognizes the gentleman from Oklahoma. Mr. Inhofe.

Mr. INHOFE. Mr. Secretary, just one question. This morning, Admiral Yost gave rather lengthy and very excellent testimony. I know it is very early, no conclusions have been reached, but he used the term three times during his testimony. That in response to the question of, "What caused it?" he said there was a 7–10 minute lapse on the bridge when something inexplicable happened.

Do you have any personal opinion as to what happened?

Secretary SKINNER. No. I think Exxon has recognized that it is a major act of negligence. You do not run into that reef, in that water, at 15 knots, off course, the wrong side of the buoys, and on the wrong side of the channel, without having some major negligence. Whether it was an auto-pilot that was on, whether it was a mate that did not have the proper experience, or did not know what he was doing, it clearly appears to be an act of significant negligence.

The NTSB will give us a complete report, and I think we can sit here and speculate for some time, and one of those items of speculation will probably be it, but I think we will know soon enough. But it certainly is an act of negligence, severe negligence.

Mr. INHOFE. Thank you.

Mr. TAUZIN. Thank you, sir. We will now offer Members of the Full Committee who are with us today a chance to ask a few questions. We will start with the gentleman from California. Mr. Bosco.

Mr. Bosco. Thank you, Mr. Chairman. Mr. Secretary, Admiral Yost was not as optimistic—at least I did not think he was—as you are about the liability here. He testified that it was not outside the realm of possibility that the United States would be held liable for this accident.

You seem very convinced that Exxon is admitting to it, willing to accept it, and can be held accountable to the people that the Mayor and the Lieutenant Governor have said need help right away.

What if Exxon does not come forward within the next couple of weeks with a substantial program to help these people? Are you prepared, then, to ask the SBA or other agencies of Government to step in now, and help these people?

Secretary SKINNER. Yes. The answer is, if we are going to explore alternatives. If the Exxon alternative is not realistic or as I, or you said, if they do not put their money where their mouth is, which so far they have, then we are going to find an alternative.

We are not going to allow the industry in Alaska to hang out to dry, period.

Mr. Bosco. So the fishermen and others—business people in Valdez, and elsewhere—can be assured that in a very short period of time they will receive financial help, whether it be from Exxon or from the U.S. Government? One way or another, that help will be forthcoming?

Secretary SKINNER. They are going to receive support. We have got to look at the alternatives as a back-up, but if they have got a claim, we are going to find a way to deal with that claim.

But right now, I think what is happening is, there is an unknown level of damage and injury. They see that if the worst case occurs, they are going to have notes due on their ships, their families are not going to have any income from the fishing industry, and they are concerned as to how that is going to happen.

That, as you probably know, they have got to now equate that into a damage claim.

I think what they have to do is be reassured that if the worst-case scenario occurs, they are going to have a method or program that will allow them to be taken care of in either—as the Mayor has suggested, the Lieutenant Governor—some kind of low-interest loan program, or something like that.

So we are going to have to find a way to deal with it. They are now in the worst-case scenario. We understand it. Hopefully, because of the containment, because of the booming, because of some of the things, the injury to the fishing industry will not be as dramatic as the worst-case scenario. The President is talking and working on this problem daily.

Mr. Bosco. But just to distill what you have said: you will be forthcoming with financial aid for those people in a timely manner?

Secretary SKINNER. Yes.

Mr. Bosco. Whether it is required of Exxon, or whether it comes directly from the U.S. Government, those people can be assured that they will be financially accounted for?

Secretary SKINNER. Well, we are going to come up with a program that gives them a level of assistance that we hope will be comforting. I do not want to be any more specific than that because there are various alternatives that are being looked at, and it is not fair to prejudge any one of those.

As I said, this Administration is not going to let the fishermen be in a situation where they are totally unprotected.

Mr. Bosco. Thank you, and thank you, Mr. Chairman.

Mr. TAUZIN. Thank you, Mr. Bosco. The gentleman from Washington State. Mr. Miller.

Mr. MILLER. Yes. Thank you, Mr. Chairman.

Mr. Secretary, I appreciate those comments you just made. As I said before you got here, many of the fishermen who have been severely economically impacted, or will be, have come from my district, north of Seattle, Washington—the State of Washington—and are very interested in seeing that they are included in any scheme that is devised for compensation.

The question I have relates to the failure of the President to declare a national disaster, and you are involved, I know, in that decision.

Before you got here, the Mayor said if this had happened off Long Island, or off San Francisco, or off Seattle, he believes there would have been a national disaster declared, and he struck a sympathetic cord with me.

Now let me get very specific here. We have been told that one of the keys to cleanup is to get the skimmers in there early. I have been told there are 14 skimmers the Navy has down near San Francisco that could have been flown up there, but the key to getting those Navy skimmers up there early on was the declaration of a national disaster.

That was the prerequisite. So why, in light of that, did not the President declare a national disaster?

Secretary SKINNER. I think that you are misinformed.

Mr. MILLER. OK. Inform me now.

Secretary SKINNER. You are misinformed. We have got four up there now. I mean, we have got Navy skimmers on the scene right now. Nothing has changed.

Mr. MILLER. You have got how many up there now?

Secretary SKINNER. There are a total of 15 skimmers on the scene right now—various Navy and Coast Guard skimmers—and some of them are military skimmers. I was up there. The Air Force was flying in resources all the time. There are almost as many Air Force airplanes up there as there are Coast Guard.

Mr. MILLER. Then why were not the 14 skimmers from San Francisco flown up their immediately?

Secretary SKINNER. Well, first of all, we have skimmers placed strategically all over the country. You cannot take every skimmer in America and bring it up to Alaska, and then have another catastrophe.

Number two, the skimming—and this is important—the first few hours are the crucial hours. Skimmers work best—if I might add—at a maximum 500 gallons an hour when they have got a heavy concentration close to the ship contained by booms in the first hours.

When you start skimming hundreds of square miles of water with what they call "must" oil, you have a completely different skimming problem.

And the best way to contain that is not by trying to skim all over the ocean, but to boom and protect the fishing areas, at the same time skimming where you can. But there is——

Mr. MILLER. Are you saying that there were skimmers on the scene within 24 hours? There were a sufficient number of skimmers?

Secretary SKINNER. No. I am not saying that. I did not say that. There is no question there were not. I said this earlier: There is no question that the response was totally inadequate. I said that it is clear when you go up there. In fact, the response did not really get coordinated until Monday evening.

That is when the Governor said it was no longer necessary for a federalization of the effort, and we agreed with him. So——

Mr. TAUZIN. Mr. Secretary, I understand the White House is now calling for you. We have three additional people here who have not had a chance to ask any questions.

Would you and the Governor consent, perhaps, to give them each one question, if you do not mind.

Secretary SKINNER. Sure. Tell the President what I did.

[Laughter.]

Mr. TAUZIN. We will start with Mrs. Unsoeld. Mrs. Unsoeld from Washington State.

Mrs. UNSOELD. Thank you very much, Mr. Chairman.

Mr. Secretary, I was delighted to hear your favorable comments on Chairman Jones's H.R. 1465, and it may be even better than the legislation that you had in mind because it has the provision to compensate for those who rely on the natural resource that may be harmed. They have the ability to be able to tap that fund. That would not be taxpayer money. It would be a fund created by the oil industry in exchange for which they are asking for a uniform standard of liability.

And perhaps we can cooperatively work on that, and it may also be able to be applied retroactively, so that it could apply to this spill. I hope the Secretary will entertain our working on this together.

I would like to ask about safety measures we need to have redone, that we hope we never have to use. How would you view an additional safety feature that tugs be required to accompany these vessels during the movement through these particular waters? Because it seems to me that allows an extra set of eyes, an extra set of brains to keep track of what is going on when you have failure in the pilot house. How would you do that?

Secretary SKINNER. I think I would ask the experts in navigation and safety to take a look at it, and if they think that makes sense, we will do it. I do not pretend to be an expert on pilotage except if it is in the air.

Mr. TAUZIN. Mr. Pallone. One question.

Secretary SKINNER. I know I am an expert there.

Mr. TAUZIN. Briefly, sir.

Mr. PALLONE. Thank you. Mr. Secretary, I know you mentioned that negligence played a major role in this, but I was just wonder-

ing—would there be any kind of navigation aid or electronic device? I know radar was mentioned in the Port of Valdez that would detect, or warn the vessel, or the people in charge of the vessel even though they may be acting on their own in a negligent fashion.

I mean, in some way could there be a kind of an extra precaution either through navigation aids, or a electronic device that goes beyond the negligence of the vessel crew?

Secretary SKINNER. Well, there are a couple of side-looking radars and a couple of things, but in this situation it is pretty hard to have a device on a ship to protect the ship when the mate, or whoever is in charge, deviates and goes right into a reef in open water at 15 knots.

I mean, we are protected for slight deviations, not a major deviation there. But we are going to look at the whole thing. Tugs might help, more positive radar control might help in that area. It is pretty hard to figure out.

You know, we have had some 6000 or 7000 tankers go up and down the sound without any incident other than about a 5000 gallon spill. So it can be done in normal circumstances unless there is gross negligence.

Mr. TAUZIN. Mr. Hertel, do you have any questions?

Mr. HERTEL. Mr. Secretary, I want to really ask for your recommendations. As we know, what many said could never happen has been such a great tragedy, and as you said to the gentleman from Washington, it could happen some place else, something similar.

Could I ask you—not for specific recommendations—but where we should start working in the Congress regarding the change in laws that you mentioned during your testimony, that must be done?

For instance, should we look at the fact that volunteers were denied in the first few days to participate in the cleanup, maybe a little bit more extensively, what you were talking about in regard to liability equipment.

What really do we need to be adequate, not only in Alaska, but around the country? Personnel to supervise and investigate on a regular basis, and further regulations, possibly, as far as pilots being on board for a longer time in difficult areas, et cetera? Could you just elaborate, Mr. Secretary.

Secretary SKINNER. Well, I think that the step that the President has taken to ask the national response team to evaluate the contingency plans, not only here, in other parts of the country, and make sure that they are really effective is a first step. That report is due soon. The President asked for it to be sooner rather than later.

I can say, on a personal note, that there is no one that would like to have people involved in Alaska—volunteers—more than the President. He came up with some suggestions when I met with him. He firmly believes that, and understands the feeling that people have for the environment, and to participate in it is a good feeling. The problem, as I indicated, is not a lack of desire. It is logistical problems in supporting a volunteer work force of Alaskans or non-Alaskans. There are 1000 people, between military and civilian people, up there now working. That is 25 percent of the population of Valdez. And there are more coming in every day.

So the logistical support in that area, of thousands of people, for an effort that probably is going to take months, and probably is not even ready to begin in some areas for a little longer, is a problem. The will is there. We have got to find a way. I know the President is totally committed to finding a way.

On the other hand, we have got to deal with the immediate problem as well. So that is the sentiment. I think we are going to have to look for ways, and would think that in the contingency plans we would probably look at ways we can use volunteer help, and possibly other governmental help.

Mr. HERTEL. Thank you.

Mr. TAUZIN. Thank you, Mr. Hertel.

Mr. Secretary, thank you for taking the time.

Secretary SKINNER. Thank you very much, Mr. Chairman.

Mr. TAUZIN. I understand how difficult these times are, and we will be glad to talk to the President about why you are late.

Also Governor, and Mayor, we want to thank you. I understand you have an appointment. I think you have heard some words of assurance here, that we are going to follow up on and watch out for you.

Lt. Governor MCALPINE. Mr. Chairman, if I could just leave with one little note. Because of the nature of the questions that have been asked, I think it is important to note that—we hear over and over, that this was inevitable. This spill was not inevitable. The state-of-the-art equipment that is there and is in place. This is a brand new tanker. It has been in service for barely 2 years. It certainly was not more inevitable than the bombing of some airplane. It was absolute stupidity and pure negligence.

The systems are there and in place. The rules have to be followed. The contingency plans are there, but, again, the rules have to be followed, and I think that is the important thing. That there were some gross violations of the rules at every turn in this matter.

Mr. TAUZIN. Yes.

Mayor DEVENS. Mr. Chairman, I gather that this is about over, and if you would indulge me for just one minute, I would like to make a statement.

Mr. TAUZIN. Let me assure you that it is not over. We are going to take a recess for about 45 minutes, until 1:00 p.m., at which time I want to warn you all, we are going to have the Chairman of Exxon, Mr. L.G. Rawl here to testify, and that should be an interesting session. So I am going to plug it and ask you to rejoin us at 1:00 p.m. But go ahead, now, with your statement.

Mayor DEVENS. Well, if I could just make one very short statement. I am a part-time Mayor from a very small Alaskan community. I am not happy with the hand I have been dealt here at all. I was quite comfortable before all this happened.

I have probably made quite a bit of the oil industry angry at me, because I have been kind of verbal about what has taken place up there. I do not mean to make the President of the United States mad at me. However, for some reason, I am leaving here not totally convinced that there is a real plan that is going to take care of the victims of this problem, and that bothers me, greatly.

The cleanup has a blank check. Why don't the victims have something? We are not asking to let Exxon off on this. What we are asking for is—there has got to be something done to keep from forcing—not just the fishermen—the fishermen are going to be hurt—but the processors, the people that are involved in tourism, the support industries that are there.

There has got to be something done to support these people. Low-interest loans until they can settle with Exxon. Don't force these people into making an early settlement with Exxon so that they do not lose their boats or lose their businesses, and that is what we are asking for.

And I appreciate that a number of you have been very strong comments to this, and I appreciate that very much. But I am going home not totally convinced that there truly is a plan to take care of these people, and I think that is a shame.

Mr. TAUZIN. Mr. Devens, just so you will know, there is indeed Federal authority for disaster declarations and assistance. I live on the Gulf Coast in Louisiana.

We are often hit by hurricanes, and while it is not by damage done by drunken sailors, it is, nevertheless, severe damage.

And the people of my district are fishermen, like the people of your district, and they end up having to make the same request, often of Government. We are in the process of looking now at declarations of disaster for some naturally caused disasters in that area.

Be assured, that the processes are there. What you have heard today is some words of assurance from the Secretary of Transportation, that he intends to see to it that those processes are utilized. We are going to watch that for you. We are going to see to it, in fact, that those processes are in fact followed for the people in your district.

Mr. Bateman wanted to make a comment before we recess.

Mr. BATEMAN. Mr. Mayor, and Lieutenant Governor, I have been sitting here concerned about whether or not, legalistically, there is a problem that this is not a natural disaster, and that the normal mechanisms whereby the Governor requests an the President declares an area to be a disaster area, give you the kind of opportunity for assistance that you need.

I think we need to have an answer from our staff—or anyone else who has got an answer—as to whether or not you fit the situation, where routinely and commonly, areas are defined, or identified as being disaster areas, triggering the low-interest loans, Small Business Administration assistance, and other assistance.

For my part, I hope that you are, and if you are, I do not see nay reason why that could not be done immediately, notwithstanding what Exxon might do and should do, being to the very maximum extent forthcoming.

So I think we need an answer as to what the Federal Government can do, and whether or not the fact that this is not a natural disaster is an impediment to things being done that we would like to have done.

Mr. TAUZIN. That is a good point. I want to point out, however, that even where the clearer case of natural disaster occurs, there is

a process by which damages must be defined as to have occurred over a certain amount before those things are triggered.

So that while those questions must be answered, and you legitimately raise them, the process does require evaluation of the damages as they occur, and that prospective restitution is not provided in the law. So we are going to have to work these things out with you and your folks, and just be aware that we are here, and we are ready to assist you in working those problems out.

Gentlemen, thank you, again, for your appearance.

We stand in recess until 1:00 p.m.

[Whereupon, at 12:20 p.m., the Subcommittee adjourned, to reconvene at 1:00 p.m., this same day.]

AFTERNOON SESSION—RECONVENED AT 1:07 P.M.

Mr. TAUZIN. The Subcommittee will please again come to order.

As we left the hearing I announced that we would have the Chairman of Exxon Corporation here, Mr. L.G. Rawl. He is now present and we will begin this afternoon's session with his testimony.

Before we begin, however, I have received a number of requests from both Members, and individuals who wanted to make some submissions to the record. Let me remind you that the record will remain open for written statements or submissions, under our rules, for 45 days.

If there are any of you who have not been accorded a chance to testify, or any Member who wants to make a formal statement for the record, I will encourage you to do so.

The more complete record we have, the better we will be able to recommend to the Full Committee action on some of the issues we have been discussing today.

Mr. Rawl, let me welcome you, and let me begin by telling you, sir, that I know it is not a pleasant time for you or the corporation.

We have not called you here to reprimand you. We have called you here to learn both what happened, and how we can work not only to prevent it, but hopefully to resolve problems in cleanup and mitigation. We need to quickly get this behind us. We need to make transportation of chemicals and other hazardous cargos more safe, not only for the environment but for the populace in the areas where those cargos pass.

I live, as I pointed out, near New Orleans, and we have a great deal of hazardous cargo up and down the river. The issues we examine here are much broader than one spill even the size of this awful tragedy in Alaska.

We welcome you, and we welcome your testimony, Mr. Rawl.

STATEMENT OF L.G. RAWL, CHAIRMAN OF THE BOARD, EXXON CORPORATION

Mr. RAWL. Mr. Chairman, thank you for inviting me to come. I will just make a short statement. I am principally here to take your questions.

Mr. TAUZIN. We do appreciate that. Your full written statement will be a part of the record.

Mr. RAWL. Thank you. I am here today to provide a frank response to questions regarding the *Exxon Valdez* oil spill, and describe our efforts to deal with its consequences.

Before this, however, I want to repeat some feelings I have, and I speak not only for myself but also for the thousands of Exxon employees who share my distress as to how sorry we are about this disaster in Alaska.

We are especially sympathetic to the impacts on the residents of the Prince William Sound area, and the people of the State of Alaska. Exxon takes full responsibility and it has done so from the very beginning, and Exxon will continue to do all we can to clean up and mitigate the spill's effects. All necessary resources are being employed.

The spill of an estimated 240,000 barrels occurred early on March 24. We have certain other factual information. The weather was clear. The ship had no known mechanical problems. A course change had been requested and authorized because of ice in the outbound shipping lane.

The captain subsequently left the bridge, and tests made some time after the grounding showed the captain's alcohol level was above limits established by the Coast Guard.

Obviously this leads to many other unanswered questions. Exxon is conducting a number of investigations of this accident as are the National Transportation Safety Board and the Coast Guard.

Other Federal and State investigations are also underway. The oil spill contingency plan was activated immediately. It called for a two-phase response. The first phase was the responsibility of Alyeska, the pipeline company.

The second phase was our responsibility, and our response was immediate. We immediately established the priorities of preventing additional spills from the damaged tanker, and mitigating the impact of the spill on the environment and the people of Alaska. A major mobilization began immediately and by now involves dozens of vessels, airplanes, booms skimmers and other equipment.

Currently, hundreds of people are involved, receiving support and direction from over 200 Exxon experts and consultants, and a number of Government agency people.

We also mobilized to mitigate the economic impact on the communities of Prince William Sound. A claims office, staffed by 30 people, has been opened, and adequate funds placed in accounts in local banks. These funds are available to provide immediate advance payments to those requiring monetary support while claims are being prepared, reviewed, and processed. Our intention is to provide fair, reasonable, and prompt settlements.

As of noon on Tuesday, approximately 97 percent of the 1 million barrels of crude oil remaining upon the *Exxon Valdez* was successfully removed. Yesterday, as I am sure you noticed, the vessel was floated off the reef and has been removed to a temporary anchorage where temporary repairs are being made. And then after that we will move it to a yard to have permanent repairs made.

For now, it is too early to assess the long-term environmental impact. Natural resource damage assessment studies are underway. We cannot judge how long recovery will take in Prince William Sound, but I can assure you that since March 24, the accident has been receiving our full attention, and will continue to do so until the job is done.

We are continuing to cooperate fully to establish the facts as to what happened. More importantly, however, we want to help in any way we can to establish what might be done to reduce the chances of such an accident happening again.

I can assure you that actions are already underway within Exxon to revise policies and procedures in light of this accident. Mr. Chairman, thank you.

[The statement of Mr. Rawl can be found at the end of the hearing.]

Mr. TAUZIN. Thank you, Mr. Rawl.

I suppose the most obvious question that arises is one that is at first complimentary of your corporation, and, at the same time, extraordinarily difficult to understand. And that is that everyone in the industry, that I speak to, tells me that Exxon, among all the corporations that transport major quantities of crude oil, has one of the best programs to ensure against this type of an accident, and yet it happened. Why?

Mr. RAWL. Well, we are talking about the human error, Mr. Chairman, that occurred. I cannot explain why. We have had, for some time, an alcohol policy that permitted rehabilitation of people who would volunteer that they had a problem. It is obviously good to encourage people to do that.

Our medical program, would pay for the rehabilitation, and then subsequently we would keep them on the payroll. Now, unfortunately, it appears that it was not clear enough that when someone had a job, a high-risk job, such as an officer on a ship, or, for example, in your State, a control man in a large refinery, or other very sensitive jobs—airplane pilot or helicopter pilot—judgment had to be made at the operating level, as to whether return to those jobs would be appropriate. If in fact they had indicated an alcohol problem, or in more recent times a drug problem, and they were rehabilitated, someone had to make the judgment that they should not be put back in that kind of job.

So it was a slip-up in this regard. Now we have heard about having lost his driver's license, for DWI, and so forth. Some of those things have come to light recently. We were not aware of a number of those things until this accident.

Mr. TAUZIN. Are you saying that the company was aware that he had an alcohol problem at one time, and that he had been rehabilitated in your eyes?

Mr. RAWL. Well, we were aware he had an alcohol problem. I personally never heard of the man until Good Friday. But he had an alcohol problem. He had turned himself in, as I understand it, Mr. Chairman, and consistent with that policy had arranged for rehabilitation.

He entered a program. He was followed up, watched, and so forth. As we all know, the statistics prove, if you have a problem like that you have to be helped for humane and human reasons, and you need close follow-up.

But even with close follow-up there are certain things you cannot have people do, in my view. Needless to say, we now have a revised policy. Normally, you do not want to write a policy that has listed exceptions, but we are in that mode at the present time.

Mr. TAUZIN. It has been said that a larger crew might have prevented the spill. Was this ship, the *Exxon Valdez*, properly crewed?

Mr. RAWL. Yes, sir. It was properly crewed. I have heard that, but that is absolutely not correct.

Mr. TAUZIN. Would it have helped, had you had a policy on board the ship for some sort of a reporting of alcohol abuse by other members of the crew?

Mr. RAWL. Well, we operate a fleet worldwide. We also charter a lot of ships. But we have 71 tankers hauling a variety of cargoes, and from time to time someone will say that—not necessarily the master—but someone has a drinking problem.

Mr. TAUZIN. Yes.

Mr. RAWL. And you follow up on it, and sometimes there is some fire under that smoke. In this case we did not have——

Mr. TAUZIN. You had no reports?

Mr. RAWL. We had no reports on this, to my knowledge.

Mr. TAUZIN. Mr. Rawl, this cleanup will cost your corporation, we are told, at least $100 million before it is finished.

Mr. RAWL. More than that.

Mr. TAUZIN. And we are also told that it will probably exceed that by a large amount.

Mr. RAWL. Yes.

Mr. TAUZIN. Now the vessel, I am told, is worth about $27 million, or so?

Mr. RAWL. Well, I would like to correct that. That vessel cost——

Mr. TAUZIN. How much is it worth?

Mr. RAWL [continuing]. $125 million 2½ to 3 years ago.

Mr. TAUZIN. So that the vessel itself is, in your opinion, worth more than the cleanup will cost?

Mr. RAWL. No. If I could just write off the vessel right now, and have everything cleaned up up there, I would do that in an instant, let me tell you. No, this is a cleanup that is going to be very expensive. I cannot tell you how much because I do not know what damage, ultimately, we will have to——

Mr. TAUZIN. Well, you know, the question has been asked—and let me make it public—with good weather to contain the spill, by booming the ship, with so large a spill and its consequences so readily available to anyone who wanted to take a picture of it, was the option ever examined to simply boom and burn?

Mr. RAWL. The ship?

Mr. TAUZIN. The oil, the ship, the entire mess, before it spread?

Mr. RAWL. I do not think that option was considered. There is a contingency plan on the books. It was part of the Alaska Pipeline legislation.

That contingency plan had originally been in place as an Alyeska contingency plan. Then, in the early 1980's, the pipeline had a certain part of it, and the shippers—whether that be Exxon or someone else—someone who might buy crude at Valdez and charter a ship and take it out—the shippers then had responsibility for certain kinds of spills.

Now, in a case such as this, it has been recognized for a long time, both in this country, and in this contingency plan, and around the world, that when you have a large spill, too large for rapid booming just around the ship, which would include spills much smaller than this one, that one important part of any plan is to immediately mobilize both aerial spraying equipment, water based spraying equipment, and dispersants to mitigate some of the impact of this spill.

Mr. TAUZIN. Yes.

Mr. RAWL. And that was part of the plan that had been reviewed by the State environmental people, I presume a number of times. I have not personally been involved in that negotiation. But also reviewed by the Coast Guard, and I am quite sure that the EPA is aware of this situation, or certainly even reviewed it.

Alyeska's responsibility, according to these rather complex plans, was the initial response requirement through phase one, so to speak, and the intent was that within about five hours, at this distance from the Port of Valdez, to get to the ship, boom the ship, and contain the spill. There was a delay because the barge they were going to use—as you probably have read—actually had some difficulty, and was under repair in a condition where they could not use it at that time. In fact it got down there—as I read it, and there is some confusion on this—in 10 hours, let's say. But had they gotten there in five, it would have been very difficult to contain such a spill.

Then phase two was our responsibility. We are supposed to mobilize equipment and material as rapidly as possible which we feel we did—and then there are two ways to handle this, and you brought this up when you talked about the burning. You could burn the crude without burning the ship, obviously, and that approach has been used in a lot of places. This crude would burn. As part of this contingency plan, we wanted to go ahead and start spraying a detergent and we wanted to test burning in applicable areas.

We could not get authority on Saturday, when we were prepared to spray this dispersant. We had a C-130 aircraft.

Mr. TAUZIN. Where did you need authority from?

Mr. RAWL. We needed authority—it is described in this plan, that down to a certain point in certain zones of Prince William Sound, the Coast Guard officer in charge on the location has authority.

But in this particular case the ship, and part of the spill was in an area—as I understand it, and I am getting into something where there is still a lot of interviewing going on—where the officer had to get approval from, or at least agreement from the State environmental people.

But then a discussion started as to—you know—we are not sure you can use that detergent, or the wind is not right, or you are going to kill fish, et cetera.

The facts are this detergent is approved for use—it is not really a detergent, it is a dispersant which has some detergent qualities.

This material is approved for use in the State of California which is pretty meticulous about things like this.

Mr. TAUZIN. Well, let me see if I understand what you are telling us.

Mr. RAWL. Yes.

Mr. TAUZIN. What you are saying is that when it came to some of these early decisions to either burn the oil, or to put detergent, dispersants on the oil, that you had difficulty obtaining State authority to do it?

Mr. RAWL. Well, I am not sure whose authority. I think it has to be a joint thing. We had requested—actually made the request on Friday, although we were not ready with the equipment on Friday.

Saturday morning we renewed it. And this is a coordinated effort. I am not really trying to blame anybody, because a lot of confusion existed. It was our spill, but there was a delay there. We finally got authority to test the material, which we had tested and

used many times before. We used it on the Mexican spill, you recall, the Ixtoc well blowout.

Mr. TAUZIN. Yes.

Mr. RAWL. A lot of this material was used, and it worked. It is essentially nontoxic in the proper applications to all marine life, and certainly fish. Now it is certainly a lot less toxic than that crude oil laying out there. And when you disperse the oil, it does not sink to the bottom. It stays in the upper levels of the water column, which permits it to biodegrade more rapidly. Now I do not mean that we could have just sprayed this material, and like magic, 200,000 barrels of oil would disappear, but we would have greatly mitigated the subsequent damage.

Although on Saturday morning we were ready and we asked for approval to use it on Friday. We asked again Saturday and had several conversations. We finally got approval at 6:45 p.m. on Sunday, and the weather turned pretty bad on us, as you know.

A 70-mile gust blew the roof off a hangar at the Valdez airport. We could not fly on Monday morning, and then we got back to it Monday afternoon.

I am not not saying that we still would not have had a very bad problem had we sprayed promptly. We still would have had considerable damage, but we would have greatly mitigated it.

Mr. TAUZIN. Mr. Rawl, I think it will help us a great deal—and you do not have to do it here today, orally—perhaps a letter submission to the Committee would be helpful—but to have a timetable analysis of how decisions were approached in those first three days, when there was good weather, and when response mechanisms may in fact have yielded some good early results before the bad weather did set in.

I think it would be useful for us to know what were the problems in getting authority, or approval, or making decisions. Because that is essentially what our Committee will be looking at when it comes to those contingency plans, and providing for future incidents—God forbid—they should occur again.

And so if you can prepare for us, perhaps, a chronology of those first three days, and the decisions that were made, or not made, and why not, regarding authorities that could not be obtained, we would greatly appreciate that kind of a submission.

Mr. RAWL. I will be glad to do so.

[A report submitted by Exxon can be found at the end of the hearing.]

Mr. TAUZIN. My own time has expired, I want to give other Members a chance, but I want to ask you one really tough question that has got to be asked.

I represent a State that has been extraordinarily supportive of the oil and gas industry, and so when I heard the Mayor of Valdez and the Lieutenant Governor today speak about their community's sense of betrayal, it really rang home.

Folks I represent want to, and have encouraged oil and gas exploration, development, transportation—the whole range of refining, and distribution and sales—in a way that few areas of the country have permitted, accepted, and encouraged.

And I suppose they are watching and listening, too, today, and they have heard that statement from the Mayor and the Lieutenant Governor, of that sense of betrayal.

Have they been betrayed? And what is your answer to them? What do you intend to do to, again, reestablish your credibility and your support base among the people of Valdez and Alaska, who have been so supportive, as we have, of your industry?

Mr. RAWL. Well, I appreciate your State being in that condition, Mr. Chairman, and I regret it very much—of course I did not hear the testimony of the gentlemen from Alaska.

Mr. TAUZIN. Yes. I think I have summarized it. He said we feel——

Mr. RAWL. Oh, I think you probably have, and——

Mr. TAUZIN. One word. Betrayed.

Mr. RAWL [continuing]. They are, I am sure, very angry. Certainly, "betrayal" would not be a word we would use. It was a tragic accident. It should not have happened. We are going to clean up the damage. We have said that.

We are responsible for the local people's anger. If they have lost their fishing season, or two seasons, or whatever it is, or whatever we have to do, we accept the responsibility for that.

We are using a large number of the local people now, on the ground, and on boats, and we have a large number employed. We will have to employ more. And we can, once we have this ship out of our hair, so to speak. If we can get it repaired and out of there, then we can—and we have been moving forward on all fronts on this cleanup—focus on the remaining problems. A lot of the oil has moved down the sound, and some of it is out in the Gulf of Alaska, as I am sure you heard.

We have boomed the fisheries, and we have had a lot of help in this regard. We have a lot of equipment, a lot of people, and we are willing to apply whatever we can.

But as you have been told, this is not a very easy area in which to work, but we are getting on with it, and I would hope to complete the work, as promptly as possible, both from the standpoint of the citizens of your State, certainly the State of Alaska and every place else we need to mitigate the damage, and hopefully get in shape to where we can be successful in undoing the damage we did as promptly as possible.

Mr. TAUZIN. Thank you, Mr. Rawl. The gentleman from Alaska. Mr. Young.

Mr. YOUNG. Thank you, Mr. Chairman. Mr. Rawl, what is Exxon doing for the fishermen in Prince William Sound? I know you have addressed this already, but we want it for the record, and, particularly, those in Cordova.

Cordova is a highly concentrated area that fishes the sound very heavily, and they have tremendous concern, and, for the record, what is Exxon doing?

Mr. RAWL. Well, what we have done—as I mentioned in my opening statement, Congressman—is that we have a claims office open. People who are suffering cash shortages as a result of this spill—and I understand there has been some loss in herring fishing—can come in and get funding. By the way, I have mentioned to our people that we want rapid processing.

We do not want a bureaucratic processing of claims. We have money in Alaskan banks, and we are willing to give them bridging money, and we will process these claims as promptly as possible.

Also, we want to put these people to work. We have put quite a few of them to work, and we will put more to work. But of course you are from there. You know what I am talking about when we talk about the risks involved.

The only good thing in this whole thing so far is that no one was killed and no one was badly hurt. But when you have a 1000 people out there, and you have 15-foot tides, which are unknown in this part of the lower 48 states, and rocky cliffs, it is pretty risky stuff.

A lot of our employees have volunteered. We are using experts, but our problem is compounded by the location, the vast distances, and so forth.

Mr. YOUNG. We are aware of that. Again, this will be a series of questions pertaining to the same thing.

What is your plan to set up a long-term environmental monitoring program to determine the long-term effects? My biggest concern, Mr. Rawl—and I know you have made this statement—you are going to take care of the problem.

I also am a realist. Once this disappears from the Washington Post front page, which is already beginning to decline, and the New York Times, and all the rest of these beautiful pieces of broadcasting instruments that we use, you are going to have a legal force of probably around 25,000 lawyers worldwide, and some who will say you do not have to do that, let's go to court. My people cannot afford to go to court, I do not want them to go to court, and I can assure you if I have anything to say, they are not going to go to court. We are going to have a fair deal on it. So what is your plan for the long-range?

Mr. RAWL. I do not want them to go to court, either.

Mr. YOUNG. That is right.

Mr. RAWL. And now, the long-range—well, you are talking both environment and liability I suppose. But in terms of the environment, we are having studies made. We have made baseline studies. We have hired a lot of environmental experts who do not normally work for us, so they are independent experts, so to speak. They are academics doing studies, and there will be more of that.

In terms of the damage to the fisheries in that sound, or wherever this oil may show up, we are going to deal with that as we see it.

I cannot project but I hope it goes away more rapidly than one might expect. As you know, worldwide, it is a mixed bag as to how long the damage from oil spills lasts. But we are going to take care of the people in Alaska.

Mr. YOUNG. Now we understand that. Now I will give you a case in point. Four years down the road no environmental is evident. This is a hypothetical question. The fish have returned; hopefully, they will return much sooner.

The fish have returned, and the main market for our fish, quite frankly—is some in Washington State, although not that much—but Japan, the Asian market, and the buyers are going to say, they are from Prince William Sound and your fish is worth 25 cents a pound instead of 2.70 in another area.

Now what is going to be Exxon's response to that?

Mr. RAWL. Well, we are just going to have to see the situation, Congressman. I just cannot speculate on a hypothetical response to a hypothetical question. I understand what you are saying, but when you get into things like remote damages, and so forth, if they are valid claims, they will be paid.

I would hope that if there was any difference in price, it certainly might not be as big as that. But I think——

Mr. YOUNG. Well, I will give you an example, if I may. For instance, one of the reasons the herring fishery was closed this time was not only to protect the stocks, but we had been informed that the price of herring had been 1/10th of 100 percent of what it was last year, although it may not have been contaminated, and we have no control over that.

Mr. RAWL. Sure. It is a reputation problem.

Mr. YOUNG. That is right. It is reputation problem.

Mr. RAWL. And that is my problem, too, right now, frankly.

Mr. YOUNG. True; true.

Mr. RAWL. And I am going to try to understand your problem, and hopefully you understand mine, and we are going to do everything we can to reconcile that problem.

Mr. YOUNG. Now the last question. There has been a lot of suggestions—you know—I believe you are on the other side of the aisle today, and the question of short-term loans, and declaring it an emergency or disaster area, which we have asked them to declare it an emergency. We may have difficulty declaring it a disaster area.

And we are talking about the side effect of lost revenues. Now we can immediately try to take—and you said you would—the fishermen direct impact, the loss of a herring season, the loss of salmon run, the lower prices, the problems of Cordova fishermen who fish in this area.

But what happens to the contractor that has three houses under contract now, but the contracts are broken because the fishermen figures he will not get his money back on time to pay the contractor's fees?

Now is there any way you can set up a fund where you in fact could lend money under that premise to keep these people afloat?

Mr. RAWL. We will just have to look at that, Congressman. As you understand, I just——

Mr. YOUNG. As well as the oil industry, and the State of Alaska.

Mr. RAWL. I am aware of that.

Mr. YOUNG. And I hope we can all work together. What I do not want—and I say this with respect to everyone in the audience and on this Committee who have gone to Harvard Law School. Lawyers make money out of confrontation, not with negotiation. And what I do not want is that large battery of Exxon lawyers saying you do not have to do this, this is 2 years after the fact, and I have got fishermen hurting, I have got a lot of people hurting, and they cannot afford to hire an attorney. And you settle them with for a penny on the dollar.

If that happens—I am going to be here, unless I do something else—but I am going to be here unless gets rid of me, and I can assure you, with the Chairman from Louisiana, and the rest of this

Committee, if you think today is rough, just try doing something that those lawyers suggest that you do not have to do.

I am going to give you one bit of advice. Don't listen to your legal beagles today.

Mr. RAWL. Yes. Well, I do not. I am sure I have said enough in the past two weeks so a lot of them may have already resigned, but that is not a part of my——

Mr. YOUNG. Well, to give you an idea—the reason I am saying that, I am aware—and I think you have handled yourself very well, and I believe you are sincere and you are an honorable person.

Mr. RAWL. Absolutely.

Mr. YOUNG. But you have certain groups of people that are not on the firing line, that are now—and I have heard this from the backgrounds of different meetings I have already. Now that type of—I call insidious type of legal advice, is trying to get up to the head man. You have a responsibility to say I have made this commitment, this is my reputation, I will back up what I have said, or the stockholders can have my resignation.

That is what I am asking you. You do not have to commit to it today but I am suggesting that you do as I suggest.

Mr. RAWL. We are going to make it right with your constituents.

Mr. YOUNG. Thank you.

Mr. TAUZIN. We have one of our Members of our Subcommittee here who has joined us, Mr. Tom Carper. I would like to recognize him for his questions.

Mr. CARPER. Thank you very much, sir. Mr. Rawl, thank you for joining us today and for your testimony.

I understand that Exxon has publicly stated that it plans to pay all claims for damages relating from the Valdez spill. I just wondered: Does that mean that Exxon is not going to rely on the $14 million cap that is in place on strict liability under what I think is called the Trans-Alaska Pipeline Act? Will Exxon continue to pay damages beyond that $14 million, or will Exxon expect the TAPS liability fund to pay for any of the damages that exceed that first $14 million?

Mr. RAWL. Well, as you may or may not know, Congressman we have contributed one-fifth of the TAPS funds already. As I recall, Senator Stevens said—the number was $250 million or $280 million, including interest. So, we feel we have put up a large part of that fund, and the purpose was to insure for this kind of thing.

That is in the legislation. Now I am not going to forego the opportunity to get back some of that money, or all that money. In the future we will continue to operate that way because it is just like buying an insurance policy. The $14 million does not limit our liability, and that $100 million does not limit our liability either, we have more liability than that obviously.

We are in other co-ops around the world, and in this country, which are insurance co-ops, and we are going to collect the insurance that we can and apply it against damages to the company, and to people's damages, and so forth. Did I answer your question?

Mr. CARPER. I think you did; yes, sir. Second question. If you could, try to recreate for us the scene on the bridge of the ship on the day of the grounding.

I understand the captain of the ship is not at the bridge; he is in his quarters. I understand——

Mr. RAWL. I am sorry. I am having a little trouble hearing you here.

Mr. CARPER. I understand the captain of the ship is not on the deck; he is in his quarters. Who is at the bridge? Who is—and I am not asking for names—but just recreate, if you will, the scene on the bridge, and the responsibilities of the players who were there.

Mr. RAWL. Well, the captain was on the bridge when the vessel left port, with a pilot, I guess a State pilot. The captain had communicated regarding the level of the tanks, and the stores, and so forth.

And then the pilot was dropped off, and the captain was still on the bridge. The third mate was on the bridge. There was a helmsman, and there was a lookout on one of the wings of the bridge.

The captain called the Coast Guard and indicated there was some ice coming off of the Columbia Glacier into the outbound channel. So he called and he wanted to move over into the northbound channel although he was going southbound.

He got authority to do that. He used the radio. The Coast Guard reported that approval was based on the fact they saw the ice on the radar, plus a prior ship, two or three hours before that had seen ice also. He then apparently set the course and asked—and this is——

Mr. CARPER. The captain set the course?

Mr. RAWL. Yes. The captain—whatever the course was. They were heading basically south. And he asked the third mate if he understood the instructions and said he was going below. For a part of that time the ship was on automatic pilot.

It is my understanding, however, in reported interviews with the mate, that after the captain left the deck he took it off automatic pilot.

Now the story becomes very unclear to me, and unclear to the interviewers. There have been interviews by both the Transportation Safety Board and some of our people who have talked to these individuals. Why they then proceeded across the channel to the reef is unclear. The captain said he asked if the mate understood the instructions—you get in this other lane, and you take a right into the channel and head south.

I know I am not using the right nautical language here, of course. But they kept moving in a southerly direction, too far, and they realized too late to maneuver to miss the reef. That is where—as I understand it, the collision occurred. But who was on the bridge? It was the helmsman, the third mate, and a lookout. They had the radar on close range looking for ice, and presumably the course change started for evasive maneuver reasons.

Mr. CARPER. I spent a little time in the Navy, as a naval flight officer, but also as a midshipman, and I recall, when we would leave port, our quartermaster would be using our radar, or whatever other fixing devices we would have to fix our position, not every minute but every several minutes, as we departed from a hazardous area.

To a guy who is not exactly a layman on this subject, it is hard to understand, with the radar up and operating, looking for the ice flows, how it would be possible to miss the land mass.

Mr. RAWL. Well, we did not hit a land mass. We hit a reef which was 36 feet deep.

Mr. CARPER. I understand.

Mr. RAWL. A lot of tankers would go over that. This tanker happened to draw 50-plus feet, so that is the problem. So the radar would not have showed that. The sonar, or whatever——

Mr. CARPER. But the radar would show the position of the ship relative to that known reef?

Mr. RAWL. Oh, there is no question. Not only the radar. This thing has the latest in celestial navigation equipment. I do not understand. You might—I thought someone who knows something about ships would understand it better than I do. I do not understand at all, frankly, why this happened.

Mr. CARPER. All right. Thank you, sir. Thank you, Mr. Chairman.

Mr. TAUZIN. The gentleman's time has expired. I want to take a minute to welcome to our Committee a former colleague of ours who spent many years here, in the Congress, representing the great State of Louisiana, from the northwest corner of our State. Mr. Joe Waggonner is with us today. Welcome, Joe. I am not going to let him ask questions or we will never get out of here. I know Joe.

Let me, instead, recognize the gentleman from North Carolina again. Mr. Coble.

Mr. COBLE. Thank you, Mr. Chairman. Mr. Rawl, thank you for being here. At the outset, Mr. Rawl, I want to say I think you all at Exxon have been good corporate citizens, and I realize that one tragedy such as the one we discussed today can pretty well dismantle and undo all the good you have done. People have a tendency to forget all the good you have done. I wish you well as you go about repairing your good name, and your credibility.

Mr. RAWL. Thank you.

Mr. COBLE. And the demeanor that you have exhibited here today, particularly to the questioning by Congressman Young of Alaska, I am convinced that you do intend to do the best you can in making these people as whole as possible.

You indicated to the Chairman, in response to his question, that you would submit a log, if you will, as to what occurred, when it occurred, and I hope that log will express attention to a matter that we heard this morning.

We were told that Coast Guardsmen were on the scene within three hours after the grounding. We were subsequently told by the Lieutenant Governor of Alaska, and the Mayor of Valdez, that virtually nothing occurred during the first three days.

I would like to have someone comment on that. The Coast Guard in fact was present on the scene within three hours, on the one hand, and, on the other hand, nothing was accomplished within three days.

I want someone to fill in the pieces for me, not necessarily today, unless you are able to do it today.

Mr. RAWL. Well, I can—I mentioned earlier that there were a number of other things going on in that two-day period other than

what I said about the delay in getting to use the dispersant. This was early Saturday morning. We had people on the ground. We mobilized equipment from literally all over the world. We had dispersant come from London. We had a plane from Florida. We had another plane from Canada. We have teams, as a company, and the industry does, too. But we have a West Coast team and a Gulf/East Coast team in case of spills. When you talk about spills you are normally talking about a barrel or two, but they are still problems and we clean them up right away.

All that was mobilized. Some of the people that have been employed as experts were recently retired. They are on those teams. Those people have come back—not very many of them—but they have invented some of these dispersants for example or have skills that are very good in this situation.

So we will give you what you want. I can do a better job in a letter or——

Mr. COBLE. That will be fine.

Mr. RAWL. But I think you should know that we were not just sitting on our hands, nor was Alyeska sitting on its hands at this——

Mr. COBLE. That will be fine, Mr. Rawl.

[A report submitted by Exxon can be found at the end of the hearing.]

Mr. RAWL. Thank you very much.

Mr. COBLE. Mr. Rawl, I was a little late getting here and you may have already covered this. If so, I apologize for repeating it. But I want to shift gears to the captain. We were told this morning—and I do not recall from whom—but that the captain had completed a rehabilitation course for people who are severely troubled by or addicted to alcohol.

Now, hypothetically, if I have someone in my employ who is severely addicted and who enrolls in a rehabilitation course, and who successfully completes it, and comes back to my employ—if he occupies a position of trust and responsibility, I would have some sort of time frame whereby he is observed, so that I know he in fact has overcome his problem.

Do you all have such a time frame, and, if so, walk me through some of the details on that.

Mr. RAWL. Congressman, I will be glad to do this again. I have responded to this question a little earlier in the meeting. But I will be glad to just tell you that we have a policy—as you heard this morning, I am sure—that helps people get back in shape. It is a policy that probably was too general in terms of what you are talking about.

The facts are, though, that in terms of an alcoholic, it is a disease that you never do get over, as I understand it. They have to be watched closely on follow-up. A better plan—and it can be done within the same policy—is to not give the person that job back, but give them a less stressful job back. Give them a way to recover, and continue to work, but certainly not as a captain of a ship, or an airplane pilot, or someone in the control room of a refinery, or a chemical plant, or jobs of that nature.

I agree, wholeheartedly, this should not have happened, but unfortunately it did. We never used to be explicit on these sensitive

jobs—local management would look at the situation and make a decision, and would do the follow-up. We cannot afford to do that any more. We will be more explicit.

What we are going to have to do is to have the same basic policy. We will help them recover, we will give them a job, but they are not going to captain a ship, or an airplane, or similar jobs. I do not think we have all the answers but we have taken a hard look at all that.

Mr. COBLE. Thank you, Mr. Rawl.

Mr. RAWL. Thank you.

Mr. COBLE. I have no further questions, Mr. Chairman.

Mr. TAUZIN. I thank the gentleman. The Chair now recognizes, from the State of Tennessee, Mr. Clement.

Mr. CLEMENT. Thank you, Mr. Chairman. Mr. Rawl, I know all of us want the United States of America to be energy independent. We want the United States to be energy diversified. How would you answer the statement that Exxon's corporate negligence has jeopardized continued oil flow through the Alaska pipeline, as well as the potential for exploring for much-needed oil in the Alaska National Wildlife Refuge, and quite likely elsewhere?

What should proponents of ANWR, and supporters of the domestic oil industry say now?

Mr. RAWL. The best way to turn around the negatives would be to get some positives from the spill cleanup, and prompt settlement of claims, and so on.

But I think we have to look for oil, Congressman, in terms of ANWR, or off-shore Louisiana, in the Gulf of Mexico, wherever we can go. We import upwards of 40 percent of our crude now, even with the pipeline running full.

As you know, 25 percent, roughly, of domestic crude comes out of Alaska. This country already has a pretty bad balance of payments problem. I have heard the administrator of the EPA say earlier that without Alaskan oil you would just get more foreign ships coming into lower 48 ports, and so forth.

I think what we have to do is re-look at all these contingency plans—and the Chairman said that is one of the purposes of your hearings. Also, I think we have demonstrated at Prudhoe Bay that we can operate, despite what you read and hear. But the Administrator has also been up there, and he feels that way about it also.

We can operate in the Arctic. We can certainly operate in the bayous of Louisiana. There is old production in some of those places, and we have learned a whole lot about the environment in the last 40 years or so.

I think that is what we have to do as a company, and that is what we have to do as an industry. I do not think we have to exacerbate this problem, as a Nation, by relying totally on foreign oil for energy.

Mr. CLEMENT. Mr. Rawl, what you said earlier, I know to Congressman Young when he was asking you the questions—does this reimbursement of economic losses—does that relate also to the populations of animals and fish that have been killed by this spill, would they be covered by this reimbursement?

Mr. RAWL. You mean would hunters and trappers, and so forth?

Mr. CLEMENT. Yes.

Mr. RAWL. Certainly. If their livelihood has been impacted. I do not know how you would replace them in kind. It is like replacing human lives in an airplane crash. You know, you cannot replace them in kind, but, certainly, if someone has been damaged that would be included. In terms of the numbers of fish killed, experience would indicate that there would probably not be very much.

In terms of what Mr. Young said, however, you lose your reputation, and it is a very difficult problem. However, in the experiences of spills— both that large one off France and the one off Mexico— the Mexican fishing industry, and the Mexican shrimping industry—as the Chairman can attest—came back very rapidly, and shrimp are fairly sensitive animals.

So, we just have to see, Congressman, how that part of it works out, but it does include all those things.

Mr. CLEMENT. Do you think the excellent shipping record in Prince William Sound lulled the industry, and maybe Federal agencies, into complacency?

Mr. RAWL. I have heard that question raised. I do not think "complacency" is the proper word because everyone has been going through—as we have—continuous training for spills, and so forth. Now I have a hunch, though, that what we have run into here is, that it is one thing to write down, "Here is a contingency plan for a 200,000 barrel spill". This happened to be one of those. Although 240,000 barrels is a bigger number, it is in the same ball park.

But when you get into the implementation, where you have three or four, or five people talking about it, and somebody says, "Well, the plan calls for dispersant," and whoever happens to have the decision making job at that time is not too familiar with the plan, certainly not too familiar with dispersant, and you have someone environmentally oriented who speculates that dispersants may be worse than the oil. There is enough confusion to where it takes two days to reconcile the debate. You have lost a real "window of opportunity," might be the way to put it.

When you have simulation tests on the plan occasionally—and they have had routine tests, and the Coast Guard has called for such drills—it is like "pop" quizzes when we were in school. They would have a test and everything would work out. But tests, or computer simulations, or such things are different from when you wake up some morning and you have oil all over the water in a pristine bay, and somebody says, "let's get the decision made." If you are in charge and it is your decision to make, you start wondering who should I call.

There needs to be a lot of review of the decision process. One of the few good things that can come out of this disaster we have caused is to re-think some of those questions. Who is going to act, and what kind of people do you need in a port such as Valdez?

And the people that are supposed to act, are they going to be supported by the people in the legislature or the people in the Congress? Because if they feel uncomfortable, or they feel they are naked out there, you will get a lot of delay, and in a big spill you cannot afford that.

Mr. CLEMENT. Thank you.

Mr. TAUZIN. The gentleman's time has expired. The Chair recognizes, again in order of seniority of the Subcommittee, the gentlelady from Maryland. Mrs. Bentley.

Mrs. BENTLEY. Thank you, Mr. Chairman. Mr. Chairman, this is a commercial question. I have received many phone calls in my office in the Baltimore area from my constituents, complaining that the price of gasoline has risen 7 to 8 cents, and they are saying, why is Exxon doing this to us when that was on the West Coast, not on the East Coast?

Mr. RAWL. I have not heard about—I, frankly, have been very focused on the West Coast. The price of crude oil has moved upwards since there was an inflection point in the price trend line back in early December. This upward price move came as a result of the OPEC members staying with their quotas better, and announcing it. You have read all these things in the paper.

But the price of crude worldwide went up, and in this country also, $7 a barrel, from early December to before this spill, and that is why the prices of products are going up.

Mrs. BENTLEY. So this incident has nothing to do with it?

Mr. RAWL. Yes. That is correct.

Mrs. BENTLEY. The $14 million liability cap that was set on the companies for a spill was established back in the early 1970's, when I was still Chairman of the Federal Maritime Commission and we had jurisdiction at that time.

Don't you think it is time that we look at that again? I mean, would the industry be willing to go along with that again? You know, we have had a lot of inflation. We have had lots of things go up.

Don't you think that cap ought to be lifted, substantially?

Mr. RAWL. I have heard a lot about that. I do not feel though, that that $14 million cap is a liability cap.

Mrs. BENTLEY. Well, maybe to you, but how about——

Mr. RAWL. That cap is sort of like your car insurance where you have a $50, or $100, or $400 deductible, and after that the insurance pays. But we have contributed. We have been paying a nickel a barrel, or whatever it is. As a 20-percent owner, we have contributed 20 percent of that money to that fund.

Mrs. BENTLEY. Yes, but that 5 cents goes on to the pipeline, not on the maritime end of it?

Mr. RAWL. No, but this liability—this $100 million goes on damage caused in a case like this also.

Mrs. BENTLEY. Oh, it does, also?

Mr. RAWL. Yes. So we do not feel there is any liability cap on this.

Mrs. BENTLEY. All right. Now this $14 million also applies to all navigable waters of the United States. I mean you may have the $100 million fund up there for the Alaskan waters, but supposing something happened down here in Chesapeake Bay, a tanker went aground down there?

Mr. RAWL. I am not sure. Really, you are getting me into an area, now, where I am uncomfortable.

Mrs. BENTLEY. OK.

Mr. RAWL. But if we spill oil in Chesapeake Bay, we would forget about the $14 million—we will clean it up. Let's hope please God, that we do not spill oil in the Chesapeake Bay.

Mrs. BENTLEY. OK. Maybe Exxon, but we have other tankers coming in.

Mr. RAWL. I know you have.

Mrs. BENTLEY. And this must be applied across the board. It is something we need to think about, Mr. Chairman, on that capping.

The other question I have for you, sir, concern double bottoms. Shell and ARCO, I believe, built two tankers each at NASCO, the same place this ship was built, with double bottoms, yet Exxon chose not to put double bottoms on the vessel. Why did you make that decision?

Mr. RAWL. Well, there is debate, as you may be aware, having been involved in the maritime business. There has been quite a debate worldwide about the value of double bottoms. The Coast Guard has been involved, and other nations have been involved.

Let me just say at the outset, though, this ship, had it had double bottoms, and hit this reef at this speed, we probably would have lost oil in any event. But I do not know that for sure. But it would likely have breached both bottoms. Now for the double bottom, as required by the Coast Guard for a ship with a 166-foot beam as this had, you would have to bring up the side 11 feet above the keel.

That will not help you a lot in a collision, for example. Also, you have the problem, if you just breach the outer shell, without breaching the inner tank in a spill—you can sometimes make the ship unstable and possibly capsize.

I mean, there are pros and cons to this. However if you are going to hit a nice sandy beach or something, a double bottom will help a lot. And I am not being facetious. I am just saying, in your part of the country, or in Chesapeake Bay, or up and down the Gulf Coast—maybe in parts of Louisiana—a double bottom might be helpful—it is a "mixed bag," though. There are pros and cons to that, and this ship has a double bottom under the engine room so that you keep power.

Now, the facts are not really clear on this question.

Mrs. BENTLEY. All right. One of the reasons that has been cited from time to time, and back when the Port and Tanker Safety Act was passed in 1978—one of the arguments was that the double bottoms are not—they were costly, you could carry more cargo without them, et cetera.

Now the Alaskan run is a Jones Act protected run, and if it is a matter of cost, don't you believe that since there is no competition from foreign tankers there, and if all tankers are equally required, that then the cost should not be a factor?

Mr. RAWL. Well, costs are always a factor. I mean, sooner or later you have a competitive situation where——

Mrs. BENTLEY. I said if all of them were required.

Mr. RAWL. Yes, I understand that, but you see——

Mrs. BENTLEY. And you are running under Jones Act protection.

Mr. RAWL. But I just want to make the point that cost is a factor or domestic crude cannot compete on the West Coast with foreign crude.

But double bottoms are used, by the way, principally for product carriers. We have a large number of double-bottom ships all over the world, and some in this country.

Generally, product carriers are smaller ships. Products are of course more toxic, in a lot of cases, than crude. So, product carriers frequently have double bottoms.

The Jones Act ships already cost twice as much as what you could build a ship for in foreign yards. If you go ahead and add additional cost, then a lot of crude gets shut in, or wells get shut in, and you have a real problem maintaining the national crude production we have currently.

Mrs. BENTLEY. Thank you, Mr. Chairman.

Mr. TAUZIN. The gentlelady's time has expired. The Chair now recognizes the gentlelady from New York. Mrs. Lowey.

Mrs. LOWEY. Thank you very much, Mr. Chairman, and thank you, Mr. Rawl. I am impressed with your sincerity. I understand your pain, and your commitment to make good, and to try and resolve the situation as expeditiously as possible.

I would like to go back to the licensing procedure which we discussed rather thoroughly with Admiral Yost this morning and I know you will be involved with it, and perhaps 5 years was not sufficient to reevaluate a driver's competence.

I am interested in hearing from you about the structure of decision-making within Exxon itself, and perhaps this is where the problem really was, and you mentioned yourself, that you cannot understand how it really happened.

And I wonder if we can learn from this, to look at other companies, too, to see how this decision-making takes place. You have rules. You have someone who is licensed. I understand—and perhaps you can focus on this, too—that he was actually in a drunk-driving course and not a rehabilitation program. Perhaps my information was incorrect.

But what I really want to focus on—this is a major responsibility, to drive this 60-million gallon tanker—who makes that decision, and is it so caught up in the bureaucracy that it really does not get all the way up there? How is that decision made as to who has that responsibility?

Mr. RAWL. First, to the bureaucracy. We do not have very much bureaucracy, Congresswoman, but I do not want to leave the impression we have none. We have 100,000 employees worldwide. We operate in 80 countries. I have mentioned we have 71 ships. We produce 1.8 million barrels of oil and 5 billion cubic feet of gas a day, and we sell 4 million barrels of products, and we refine 3 million barrels of products.

So, obviously, I do not make every decision. But policies such as this, particularly since we are a U.S. corporation in this country, are the same in New York as they are elsewhere.

Now we have 300 people in your State, whereas in Alaska we have a small number. In other States, we have quite a bit more. With this diverse operation the policy is clear, but who decides whether a ship captain is qualified are the people who run the marine company, which is a shipping company in Houston. Now, we have a number of other marine companies around the world, and that is where the operating decisions have to be made. Because

those are the people that run the show. We give them a policy, and it is pretty clear as to how, in a good social-conscience way, we try to rehabilitate people. The other point in that argument is, if as an employee you do not tell your supervisor that you have a drinking or a drug problem and do not come in for rehabilitation, then when we find it out we are going to fire you. This is a pretty serious thing.

So you try to use that bait to find out who has a problem. Now, what said earlier today—and I am not sure you were here at the time—is that we did not say that after you give this man rehabilitation he should not go back to a sensitive job. It was not a drunk-driving school, by the way, it was a hospital program.

We knew he had the earlier DWI's because he told us, but the next one was in some other State—more recently. We did not know that.

We put him into this program, and paid for it through our insurance, hospitalization, and then gave him his job back. What we should have done in this case, in this kind of a job, is have given him a job back but not the same one. This then would get people like this back to work—but not back in the same job, or not the job of running the Baton Rouge refinery, or driving a gasoline tanker truck in the State of Maryland.

I mean, you cannot make those kind of judgments remote from the operation. You talk about bureaucracy. If we had to make those kinds of judgments in New York you could never get a decision. We are talking about, worldwide, probably 300 masters on ships, or 250. If management, at that level, cannot make those decisions, then you have to get some different people at that level who can make those decisions.

Mrs. LOWEY. So that your recommendations to prevent this from happening again would be as follows. What, actually, are you recommending in terms of decision-making?

Mr. RAWL. Well, what we have done is that we still try to encourage people to come in and get rehabilitated. And it has been a drug and alcohol policy for some time now. It used to be just an alcohol policy. Unfortunately, there are very few of us who do not know somebody who has had some kind of a problem with drugs or alcohol. Certainly anybody that runs a company or other large organization knows someone with this problem.

You have your standard "x" percent of the people who have these problems. Now we have that policy in place. What we have to do now is to stipulate by job title, who is working in critical areas. They will not do what they have been doing in a refinery or on a tank truck, or whatever it is—with the hope that we get people to come in and tell us about there problems.

We will give them a job, and then if they fail again, however, they will be terminated. But you have got to give them a chance.

Mrs. LOWEY. Oh, I agree with you because there are many roles that they can still perform quite satisfactorily.

Mr. RAWL. Yes.

Mrs. LOWEY. But I think that we have to look at it very carefully, as to who is making the final decision as to whether a person is competent to drive that 60-million gallon tanker.

Mr. RAWL. I could not agree more, and what we have done with this list of critical jobs means that there is not going to be a whole lot of judgment room as to—you know—"they are really doing well, so maybe we can go along." We just cannot afford to do that, and that is unfortunate because it is——

Mr. TAUZIN. The gentlelady's time has expired.

Mrs. LOWEY. Thank you.

Mr. TAUZIN. Thank you, Mrs. Lowey. Again, recognizing Members of the Subcommittee in order of seniority, the gentleman from Massachusetts. Mr. Studds.

Mr. STUDDS. Thank you, Mr. Chairman. Mr. Rawl, I apologize for missing the first part of your testimony. I know that some Members have raised questions of liability with you. I know Mr. Young did, and I heard Mr. Clement, and there may have been others.

Let me see if I can ask you a little bit more specifically than I understood them to have raised the subject.

Is Exxon willing to accept full liability for all reasonable cleanup costs, and all provable economic and natural resource damages suffered as a result of this spill?

Mr. RAWL. All reasonable and provable? Well, even—you know—all cleanup costs.

Mr. STUDDS. All cleanup costs, and all——

Mr. RAWL. Now it is——

Mr. STUDDS [continuing]. Provable economic and natural resource damages?

Mr. RAWL. Well, it depends on what you mean by "economic," Mr. Congressman. I think, yes, if it is in that area. Now when you start getting into remote damages, which—I am not a lawyer but I understand this could roll us around the world. I am just going to have to say I do not understand it well enough to respond.

Mr. STUDDS. Well, I understand your reluctance to precisely respond to that. The attorneys, presumably behind you, would be upset if you did. But let me try to get at this. Is it possible for you to assure us, now, that notwithstanding your inability to give a precise answer, which I understand, to that first question, that you will not—that is to say, Exxon—will not, at any point, seek to prove that all or part of the damages resulting from the spill resulted from the negligence of the Coast Guard, or any other agency of the U.S. Government?

Mr. RAWL. Yes.

Mr. STUDDS. We have your unequivocal assurance on that?

Mr. RAWL. Well, it depends on what we are—my point is, we ran a ship aground. We have said we did it, and whether you get into debates as to whether the Coast Guard should have had on their radar, or did not have on their radar, or what, we will accept that responsibility, Congressman.

Does that answer your question well enough?

Mr. STUDDS. I hope so.

Mr. RAWL. Well, I hope so, too.

Mr. STUDDS. As you know, there is a defense to liability that theoretically could be asserted, if one asserted negligence or incompetence on the part of the U.S. Government or one of its agencies.

Mr. RAWL. I do not know. I do not know that—you carry me into "deep water." Obviously, you are one of the Harvard lawyers that the Chairman talked about.

[Laughter.]

Mr. STUDDS. I do not know how to break this to you, sir, but you are 0 for 2.

[Laughter.]

Mr. RAWL. I apologize.

Mr. STUDDS. That is okay. It was the Harvard part that hurt the most.

[Laughter.]

Mr. STUDDS. On second thought, they are both pretty damaging.

Mr. RAWL. I hope you are not going to have a claim on that statement now.

Mr. STUDDS. No. If I could afford an attorney, I would think about it. Neither of us, I suspect, are attorneys, is an attorney, but——

Mr. RAWL. I understand you know more about it than I do, though. I have that feeling.

Mr. STUDDS. In that case we should—that raises another subject which I will discuss with you in private.

[Laughter.]

Mr. STUDDS. I just want to be sure—and I do not know that one can get that assurance in a reasonable fashion in this setting at this time—that we are not going to find, a week, or a month, or six months, or a year down the road, when the immediate glare of headlights and cameras, and the inevitable short attention span of the American people and their media, has relegated this somewhere to the background. That somewhere, in some court, a lawyer representing Exxon is going to suggest that the Coast Guard did not do all that it should or could have done; that therefore, at least some of the legal liability should fall on the Government and the taxpayers of the United States, rather than on the corporation.

Mr. RAWL. Now let me just put it this way, in operational terms. There were something like 8800 voyages with tankers in and out of that harbor. We had a large percentage of them. Twenty percent, or less I guess, because we probably had bigger ships.

A large number of those times we did not expect any radar help, and we did not get any radar help, if that is what you are getting to right now. And therefore, when we put that ship in there the last time, and unfortunately, did not get it out of there, as far as the people that were running that company, Exxon Shipping Company—they did not expect to have to rely on the Coast Guard to get them out of that harbor.

I said earlier, I think before you came in, that the weather was good, and so forth. So if you are talking about that particular part of it. But you know, I feel a little uncomfortable, just generalizing on this kind of thinking. But I am trying to get across my intention, our corporate intention, and the intention of the company in Houston that is dealing with these ships.

Mr. STUDDS. I am partly reassured. I understand that you really could not go further than that without being attacked from behind there by whichever your attorneys are, but——

Mr. RAWL. No, I do not even worry about that. I just do not want to walk off into a ditch and find out that I misunderstood your question, or something.

Mr. STUDDS. I appreciate the difficulty of responding to it with precision, but let me say to you that we have an equally difficult set of decisions here, as I am sure you will acknowledge, not the least of which is the pending request to open the Arctic National Wildlife Refuge for exploration and possible production.

I happen to chair the subcommittee of this Committee with jurisdiction over that question, and I have to tell you that I have, in the absence—and this is not meant as a criticism of your inability to respond with precision to the previous question. I would be astonished if you did, and I think your attorneys would be appalled.

But in the absence of such unequivocal assurance, the impossibility, I should say, of obtaining that kind of assurance at this point, I, for one, am even more hesitant than I was before—and that is saying something—about putting at risk these kinds of resources until we have answered some awfully important questions.

Let me ask you, in that regard: I assume you are familiar with the pending comprehensive oil spill liability legislation which, in one form or another, has been before this Committee and this Congress for most of your life-time and mine.

Mr. RAWL. I was familiar with some of the earlier versions.

Mr. STUDDS. It has not changed a lot over the years. It has mellowed a bit, it has been tinkered with here and there, but it is basically the same lovable oil-spill legislation that we have all been through.

[Laughter.]

Mr. STUDDS. And is it fair to ask you, at this point, whether or not—I guess you can speak for Exxon, or perhaps even for the industry—you folks are generally supportive of that legislation now?

Mr. RAWL. Congressman, frankly, I recall that several versions ago we were supportive. I guess I would have to read it, although I trust you very much.

Mr. STUDDS. There is no precedent for that around here.

Mr. RAWL. OK.

Mr. STUDDS. I understand.

Mr. RAWL. But we did support it, and this was——

Mr. STUDDS. I appreciate that.

Mr. RAWL [continuing]. A charge that was made, where you had a problem, you had a fund that would clean it up and——

Mr. STUDDS. We will look forward to your support. Thank you. Thank you, Mr. Chairman.

Mr. TAUZIN. The gentleman's time has expired. That was one of the best legal lines of questioning I have heard in a long time.

We will now recognize the gentleman from Washington State. Mr. Miller.

Mr. MILLER. Thank you, Mr. Chairman. Mr. Rawl, we have had questions on why it happened, and how it happened, and the clean-up, and how do we prevent i from happening. I have a very parochial concern, but a very important concern to my constituents that I want to raise with you, even though you have talked in general terms about it.

I am a Member of the Merchant Marine and Fisheries Committee. I am not a Member of this Subcommittee, but I am here because I represent a district in Washington State, and it may surprise you—or not—to learn that probably 50 percent of the fishermen that earn their livelihood fishing in the Prince William area—maybe more than 50 percent—come from Washington State. Did you know that?

Mr. RAWL. No, but I am not surprised. I know you have a lot of fishermen in Washington State.

Mr. MILLER. Right. And so I listened to your concern for the residents of Alaska, and I appreciate that, but you will understand that that leads me, given my concern, to the following question. How will Exxon compensate fishermen like the purse seiners and gill netters from Seattle who fish in Alaska? What about the crew members who plan to work on these boats?

Mr. RAWL. Well, if these are valid claims and—for example, if your fisherman from Washington State has some diary, or last year's tax return, or something, or some way to demonstrate that they have fished that sound, and that was their livelihood, and so forth, then that is a valid claim as far as I am concerned. We will deal with them as if they were Alaskans.

Mr. MILLER. That is what I wanted to hear.

Mr. RAWL. Is that straight? OK. Fine.

Mr. MILLER. Thank you. I am getting a lot of questions——

Mr. RAWL. I am sure you are.

Mr. MILLER [continuing]. From such fishermen. Do you, at this point, have an address? Does Exxon have an address where fishermen in my district can write? An office?

Mr. RAWL. I am sure we do. We have an office—I might have said this before you came in—we have a 30-person office in Valdez. I am sure it has an address and telephones, but I will get you an address somewhere else if that does not suit you. I found out a lot of people know my phone number and address. I am about to change that.

[Laughter.]

Mr. MILLER. And I do not want all my fishermen calling you at home.

Mr. RAWL. I understand.

Mr. MILLER. But it would be helpful, in terms of constructively addressing this——

Mr. RAWL. I think so.

Mr. MILLER [continuing]. If, when people call me, I can say, look, here is who you contact.

Mr. RAWL. We will have it in your office tomorrow. If you are there, you will have an address and the phone number, and so forth. How is that?

Mr. MILLER. I appreciate it.

Mr. RAWL. OK.

Mr. MILLER. One last question. Do I have a minute? Going beyond the fishermen, every year, we have got thousands of people who work in the salmon and herring processing plants.

We have now got a lost herring season. We may lose part of a flying salmon run. What about the people that work in these processing plants? What do you tell them?

Mr. RAWL. I do not know, frankly. I will just have to find out more about that, but as I have discussed with the Congressman from Massachusetts, you get into things like remote damages, and other things that frankly I really do not understand. If there are valid claims—and I would not want to deal with all the workers in the processing plant, but presumably somebody owns it, and runs it, and so forth. Whoever's processing plant it is, if they have valid claims we will deal with those people, but do not ask me to define "valid," Congressman. I would have a lot of trouble with that. Some kind of way to make sure—we are having a lot of people show up from a lot of places, that have never even seen Valdez before, but you understand.

Mr. MILLER. I can appreciate that. Thank you, Mr. Chairman.

Mr. TAUZIN. The gentleman's time has expired. The Chair now recognizes the gentleman from California. Mr. Bosco.

Mr. BOSCO. Thank you. Thank you, Mr. Rawl, for your testimony. I represent about a third of the California coast, the northern part, and our people have so far been very vocally against any oil development in that region, and now they are militantly against it.

And I think that watching you, and the sincere professional approach you have taken, has reminded me of hundreds of hearings that I have sat at where professionals from the oil industry have assured us that all of the emergency plans are in place, that all of the risks have been accounted for.

People have always told us there would be risks, but that the experts are there, and have the contingency plans in place. And now the term, "Valdez," I think is synonymous with, "That ain't true."

What would you say to these people on the coast who—some of them have believed this in the past.

Mr. RAWL. What would I say to them if they say what, "That ain't true," or what? I do not quite understand the question.

Mr. BOSCO. What would you say about the validity of what we have heard in this Committee, what we have been told by the oil industry year after year, that these little fishing villages, these people that make their living in simple, basic, natural ways, can be protected from the onslaught of development because the experts have the plans in place, the experts have it figured out?

Mr. RAWL. Well, I think we would have to remind them of what they have been told, and, by the way, I am not a professional witness talking on behalf of the oil companies. We are just trying to work our way through this disaster.

But basically, it depends a lot, I suppose, in the case of Northern California, how we clean up this mess we have made in Alaska, which would be one thing that might be helpful to your constituents when they consider development. You have natural seeps along that coast. I guess your district does not go down to Santa Barbara, or maybe it does. I do not know your district. But you have natural seeps right off Santa Barbara. You may have seen them. I have seen them many times. Oil just keeps bubbling up.

The fishlife and all the wildlife around there are—it is terrific, you know. They had the great Santa Barbara spill back in the late 1960's. It actually cleaned up much more rapidly than most people thought it would.

If I lived there I would probably have the same kinds of problems. The Chairman's State probably does not want the problems that they have had. But somewhere in this country, we just have got to do some of this activity in our own back yard, so to speak.

I think that in the case of California the results have been pretty good. There have been spills there, but there has not been, to my knowledge, real lasting damage. But it is a difficult question and I can be sympathetic with the people, and you, for asking that question.

Mr. Bosco. I know in Alaska you had about three days of relatively calm weather to at least get a good headstart on this spill, and from what other witnesses have said, that did not happen. Up our way, we never have three days of calm weather out there.

Mr. RAWL. Well, I have answered that question but I will answer it again. The facts are we were prepared on Saturday morning, which was consistent with the contingency plan, to spray the material, the dispersant, to greatly mitigate the spill. We had a spill that varied between 4 miles and 6 miles across. We were not permitted to do so until 6:45 on Sunday.

By then the weather got bad, and I know what you are talking about when you mention your weather. But part of the contingency plan all along with a large spill was that you had to use this dispersant, or a dispersant. This happened to be corexit 9527. It is approved for use in your State, which is no mean feat in terms of toxicity, and so forth, as you know better than I do, Congressman.

Mr. Bosco. Well, could I ask you, Mr. Rawl, one other question. You have indicated that Exxon has paid into the liability fund, which of course is true; but under the law, both Exxon and the fund together are only strictly liable for $100 million. You have to pay the first $14 million, and then the fund would pay the remaining $86 million.

But even the fund would raise a defense against paying for any of this accident based on Exxon's negligence. I am not concerned about what the whole legal picture is, but I am concerned about these fishermen up there, and these others, that really need money right now.

Are they going to have to wait while you are fighting with the fund or——

Mr. RAWL. No, sir. I also answered that earlier. We have 30 people in a claims office in Valdez, and the fund has got nothing to do with the claims office. We are paying the claims. We are not waiting for the fund. But let me say one other thing.

There is a lot of focus, in both sides of the House, on that particular fund, which is part of an insurance situation. The facts are we have a claims office. We are paying people now against the time it takes to process a claim, but they will have to have a valid claim obviously. But also, that $100 million is only the cap on that particular insurance policy.

So we are not saying that that law limits our liability to $100 million, and we only have to pay the first $14 million or——

Mr. Bosco. Well, I think in this sense you have been exemplary. I mean, if Exxon sticks with that—which I am sure you will—then I think you have proven to all of us that you intend to do right by

these people, who really are the ones that are suffering the most from this.

Mr. RAWL. Yes.

Mr. BOSCO. Thank you.

Mr. TAUZIN. I thank the gentleman. The Chair now recognizes the gentleman from Michigan. Mr. Hertel.

Mr. HERTEL. Thank you, Mr. Chairman. I want to get back to what appears to be a contingency to a contingency, when you talked about the dispersant decisions, and the whole discussion there.

It seems to me that there was not as much knowledge as there should have been about this kind of a contingency, as to the use of the dispersants in the water. Could you comment more on that.

Mr. RAWL. I did not quite understand. I am having a little trouble hearing down here.

Mr. HERTEL. When they talked about the dispersant decision, and whether it should be made in the calm waters, when it was attempted, and all that.

Mr. RAWL. Oh, I see. OK. I missed a couple words in there. Actually, the material is effective in cold water, warm water, calm water, or rough water. Now it is not as effective in cold water or very smooth water as it would be in warm water, but when I am talking "effective," let's assume it has a 100-percent effectiveness, and if it is 40 degrees, as that sound is, and if the water happened to be smooth, it would be 80-percent effective. That means you just apply more of it. It is nontoxic. Relative to oil there is essentially no toxicity.

There is a little toxicity but by a factor, of two magnitudes less toxic than crude oil. It disperses this material into little globules, microscopic almost, and permits biodegradation, and it stays in the upper portion of the water column. It does not fall to the bottom as tar, as mention in some of the things that I have heard, and read.

And it has been tested many places. There was the big Ixtoc blowout off of Mexico where, literally millions of barrels blew out of those wells in the Gulf of Mexico. There is a shrimping industry there. This material was used there and was very effective. It has been used in a lot of places. I mentioned earlier it is approved in California, it is approved in Canada, it is approved in 12 other countries around the world, and it has been around since 1970. But it has been improved all the time.

I have heard someone say that it is not good on Alaskan crude. That is one of the best crudes to use it on because it has natural detergent material in it which is helpful in this regard.

The point I am making is that I have heard a lot of that, too, but what we ran into on that Saturday was that we had to have authority to apply this material.

We got authority to do a test, but what I am saying is that it has already been approved by the EPA and a number of other people, and——

Mr. HERTEL. To test how it would work in this situation?

Mr. RAWL. Yes, but to test. But why do you have to test? You know, we should have just gotten on with it. But that is all right. We did a test, it worked, but then we were told, well, the water is

too calm. Well, the water was not. The wind was at a Beaufort number of three to four, which is excellent for this.

It is nice to do tests, and it is nice to say, here is the contingency plan. But when you get 200,000 barrels of oil on the water and you have a bunch of people that have to check with other people—and those days are passing, and those hours are passing—one thing I would ask this Committee to consider is how do you focus authority. I can understand why they just do not give authority to Exxon to go out and start dumping stuff on the water.

But if authority is required, you have got to centralize it somewhere. I do not know who, or how, but it would seem to me—and we have had this experience in other parts of the world, where, once you have centralized authority, with the narrow windows of opportunity you have, you do a heck of a lot better than if you do not.

Mr. HERTEL. So the contingency plans did not provide for centralized authority?

Mr. RAWL. Well, it provides it jointly, and I can understand why you do this. I mean, I understand the political ramifications of it. It is in a State, and this is the Federal Government, and in order to get things passed, you have got to make some kind of compromise—but somehow or another, I would hope that we could work that part of the problem.

Mr. HERTEL. Now in your written statement, you said that the contingency plan was activated immediately, and the two-phased response, and your response was the second phase, and your response was immediate and thorough.

Mr. RAWL. Well, what you have to understand about the contingency plan is that it describes what you have to do in a certain period of time. You have to have the team on the ground in 24 hours, and a number of other things. The dispersant material was there. We were in a position, within 24 hours, to start spraying.

Of course it was the middle of the night, so that was not exactly right. But we were ready, on Saturday morning, to start spraying material.

And I am not trying to tell you that this material, when sprayed on that oil, would have taken the problem away. It would have greatly mitigated the problem. And by Sunday night, when we had lost those two days, we ended up with gale-force winds, 70-mile winds at Valdez, which blew the roof off the hangar, and a number of other problems.

But then Sunday--Monday morning we could not even get up with aircraft, and then of course this oil——

Mr. HERTEL. That was the critical period. Oil also weathers. You know, if you just let it lay out there, if it was not blowing around, about 40 percent of it would have evaporated anyway, just——

Mr. HERTEL. How much does Exxon spend on research into combatting this type of a spill, oil spill?

Mr. RAWL. I really do not know the number. We have done a lot, and we train people at—I think it is Texas A&M which has a number of schools a year. We have over 1000 people, worldwide, who are trained in various aspects of spills. Most spills, we would hope would be small, a barrel or so, when a hose breaks, or something like that. But you have to stay on top of it.

We have done a lot of research and technical studies that apply to this type of problem.

Mr. HERTEL. Could you get those numbers for the Committee?

Mr. RAWL. The specific numbers on it or——

Mr. HERTEL. In dollars.

Mr. RAWL. I can give you research numbers. We spend about $600 million a year on research, and a large part of it has certain facets that apply to this sort of thing. But I can certainly get those numbers for the Committee.

[A report submitted by Exxon can be found at the end of the hearing.]

Mr. HERTEL. You know about the question about volunteers being permitted. It says by Sunday, at 9:00 a.m., Exxon had a 100 people on cleanup operations with 200 on standby. What do you mean by "standby"? Where were those extra 200?

Mr. RAWL. They were standing by, right there. We are talking about what day at 9:00 a.m.? Sunday?

Mr. HERTEL. Nine on Sunday.

Mr. RAWL. Yes. Well, we had people available to do this spraying, and planes, and all that sort of equipment.

Mr. HERTEL. Now we had testimony from fishermen and I know that you heard from a lot of them. Why is the company's policy not to allow the volunteers to participate at an earlier time?

Mr. RAWL. It is not a company policy. A lot of our own employees would like to go to Alaska, and a lot of people have volunteered. We are using as many of those fishermen as we can. When I talked to Congressman Young about this, I mentioned that—what you have initially—is a very dangerous situation, when the spill is close to the ship and oil vaporizes, and so forth.

But also, it is a very rocky place, and it is not as if you have a nice sand beach that has been fouled. And the risks are great. We have had no deaths on the ship or anything else. We have had no major injuries that I have heard of.

It is a very difficult place to get around in. We are talking about cleaning beaches off of boats, and the tide in this sound, is 15 feet, which is much larger than most of us in the Lower 48 are used to. If you fell into it when it was going out you would be either a good swimmer or a fast boat would have to get ahold of you.

This is very dangerous place to operate. Now we are using all the Alaskans we can, and now that we have got that ship out of there, or at least to where we can have temporary repairs, before we can get it to a shipyard somewhere, we can use more people.

But volunteers per se, we are concerned about their safety, basically.

Mr. HERTEL. I understand some sailors, some fishermen wanted to take booms out, and they were refused the opportunity to participate.

Mr. RAWL. Well, I do not know. I have heard a lot of things that, after I really got on to some people, were not verifiable. But, you know, there are a lot of people very angry about this and you cannot blame them for that.

But we now have utilized all the fishing boats that we can possibly utilize and we have utilized a lot of these fishermen.

Mr. HERTEL. Thank you.

Mr. RAWL. Thank you.

Mr. HERTEL. I must say that, as has been pointed out—and obviously one can never predict such a tragedy—but that it could have even been worse. It could have been been worse. There could have been even more damage done. There could have even been a loss of life. Obviously the contingency plans were not contingent on anything, and this tragedy, as terrible as it is, in the history of our country, could even have been worse. That is how outrageous the planning had been, and investment had been.

Mr. TAUZIN. I thank the gentleman. In fact the gentleman from Alaska pointed out to me that if the winds had been in the opposite direction damage in Prince William Sound would have been a lot worse as well, than apparently it is now.

I thank the gentleman for his contributions. Mrs. Bentley wanted to return for another question, Mr. Rawl. Mrs. Bentley.

Mrs. BENTLEY. Mr. Rawl, I know that these last two weeks have been a nightmare for you, and it always seems that it is some tragedy that forces us to make changes.

As it happened, 2 years ago, I had a real tragedy in my district when the Amtrak trains crashed and we lost 16 lives, and from that some good is developing.

Hopefully, from this, some good will develop. I do want to say that I have known many of your crews over the years; they have always been very responsible, and have always acted with a great deal of responsibility. I want to commend you for your forthrightness here today.

I just want to get back to our double bottoms a little bit, and the Jones Act ships a little bit. This vessel, right now, you are having some problems with as to where you are going to take it for repair, because everybody is a little sensitive to the fact that it might leak.

Have you made any——

Mr. RAWL. There is only one yard that can do it in the U.S. and apparently the Governor of Oregon does not want to do it. We will get it done in the Far East, probably.

Mrs. BENTLEY. All right. If you take it to the Far East, as I understand it, you are going to have to replace a large portion of the bottom, maybe well over 50 percent of the plates. This is something I have heard.

Mr. RAWL. I have not heard that, but——

Mrs. BENTLEY. Yes. If that happens——

Mr. RAWL. Yes. I am sure it does.

Mrs. BENTLEY. If that happens, the ship will not be qualified to be a Jones Act ship any more?

Mr. RAWL. If we take it to the Far East?

Mrs. BENTLEY. I think so.

Mr. RAWL. Oh, I do not know.

Mrs. BENTLEY. I mean, I am mentioning this to you at this point.

Mr. RAWL. Well, I appreciate that.

Mrs. BENTLEY. You need to look at that. If you intend to keep it on that run, you need to look at that and maybe work out a way of having that ship repaired somewhere in this country, whether you take it offshore and finish taking the oil out and putting it——

Mr. RAWL. Well, I think what the basic problem is, Congresswoman, is——

Mrs. BENTLEY. We would like to have it at Sparrows Point. I will tell you that now.

Mr. RAWL. I know you would.

[Laughter.]

Mr. RAWL. I would like to put it up here but it is a long way around.

Mrs. BENTLEY. I know.

Mr. RAWL. And it is a slow process. But I appreciate your comment. I was not aware of that potential problem.

Mrs. BENTLEY. Yes.

Mr. RAWL. I have hopes that the people in Oregon will decide that they want those jobs and will do the work. If we get the temporary repairs done properly, there is no spill potential there.

Mrs. BENTLEY. No.

Mr. RAWL. You know. We are not talking about spilling any more oil on the way to Washington. I mean Oregon.

Mrs. BENTLEY. Thank you.

Mr. RAWL. Thank you very much.

Mr. TAUZIN. Mr. Rawl, again, we appreciate your testimony. I think I concur with many of the statements made here today. We respect that it is a difficult time at your end, personally, and with the company. And we also deeply respect sincerity and the sentiments you have expressed today in terms of your corporation's willingness to do everything possible to mitigate these damages.

I would like to point out to you that you have heard some comment today about this tragedy spilling over into other issues such as ANWR, and offshore development. And I do not think there is any denying that this tragedy has indeed caused some political problems for those issues.

I want to point out, however, that whether or not we open up ANWR and whether or not we open up offshore areas in addition to the Gulf of Mexico to extensive drilling, we are going to have to transport oil to America from somewhere.

If we fail to develop our own resources, we may have to transport more, than we are transporting now. But transport will continue to be a major problem for this country, and for the world.

I understand a billion barrels of oil are daily on the high seas in transport somewhere. The issues we have tried to explore today transcend those issues of whether or not we are going to drill anywhere, and really get down to the question of whether or not we can improve the transport of this and other hazardous cargos that may indeed impact our environment and our lives.

And to that end we ask your continued help. We will be exploring this issue of contingency response and also the liability, extensively, in the next weeks and months.

We hope to get some legislation out. Now you just went through the worst spill and some of the worst days that a company could possibly go through in regard to this tragedy.

The experience your people gain on the ground, not only from what you do right but from what went wrong, will be invaluable to us. We thank you for your testimony—and we appreciate the time you have shared with us. If I can make one request of you, it is to spend some time doing outlining what went right and what went wrong, and how you think, as the corporate executive, this Con-

gress can better minimize the risk of transportation of hazardous cargos. We will have to continue to rely upon transportation of hazardous cargos from some source for this Nation's economic well-being. In that regard, thank you, again, for your testimony, and if you will be so kind as to additionally submit to us that chronology of events.

Mr. RAWL. I will do that.

[A report submitted by Exxon can be found at the end of the hearing.]

Mr. TAUZIN. Mr. Rawl, thank you again for your time, and for the courtesy you have given this Committee. Thank you, sir.

Mr. RAWL. Thank you.

Mr. TAUZIN. Ladies and gentlemen, the next set of witnesses will be from the resource agency departments of the National Response Team, and while the witnesses are taking their places at the table, I want to make the public aware that our Subcommittee, and the Full Committee, will be revising our plan for consideration of oil spill liability legislation. We expect now, that hearings on H.R. 1465 will begin this month. Our plan is to bring legislation to the floor of the House for consideration in very short order following those hearings.

So please be aware that Chairman Jones and I will be cooperating on a hearing schedule that will hopefully take us to the floor as rapidly as we can while this issue is so fresh in the minds of the public, and in the concerns of the entire Congress.

Today, we are joined in the resource panel by Mr. Kent Burton, Assistant Secretary of Commerce and Deputy Administrator of the National Oceanic and Atmospheric Administration; Mr. James Makris, who is Director of the Chemical Preparedness and Prevention Office, and the Co-Chairman of the National Response Team; and Mr. David Olsen, who is Acting Assistant Director for Wildlife Resources, U.S. Fish and Wildlife Service.

Gentlemen, welcome. Mr. Burton, if you would be so kind as to, again, summarize your testimony, and your written testimony will be made a part of the record. Thank you.

STATEMENT OF A PANEL, CONSISTING OF KENT BURTON, ASSISTANT SECRETARY OF COMMERCE AND DEPUTY ADMINISTRATOR, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION; JAMES L. MAKRIS, DIRECTOR, CHEMICAL PREPAREDNESS AND PREVENTION OFFICE, ENVIRONMENTAL PROTECTION AGENCY, CO-CHAIRMAN, NATIONAL RESPONSE TEAM; AND DAVID OLSEN, ACTING ASSISTANT DIRECTOR FOR WILDLIFE RESOURCES, U.S. FISH AND WILDLIFE SERVICE

Mr. BURTON. Thank you, Mr. Chairman. It is a pleasure to be here today. The facts of the spill have been, I think, well iterated this morning. I will summarize as best I can, what the role of our Agency is and what we are doing.

Prince William Sound—let me just review, maybe just a little bit, about the geography there, which may give some context to what we are doing. As we know, the Prince William Sound is located on the south central part of the Alaskan coast. It is a remote, pristine fjord, estuary-type ecosystem, that contains important nat-

ural resources, as we all know. At least five species of threatened or endangered marine mammals frequent the area some time during the year.

It is one of the largest undeveloped marine ecosystems in the United States, inhabited by only about 6,000 people in scattered towns, villages, and hamlets.

The economy of the area is based on natural resources and includes at least the following: (1) commercial fishing, which of course has been noted before the Committee. The commercial fisheries include salmon and herring as well as smaller fisheries of king crab, shrimp, and halibut. We estimate these renewable resources, each year, are worth at least $100 million, probably more. (2) recreation; (3) subsistence fishing and hunting; (4) logging; and (5) oil transportation.

Perhaps most devastating with this sad event was the timing of the spill. As the harsh Alaskan winter turns to spring, the irreplaceable resources of Prince William Sound are most in jeopardy. For example, migrating herring are finally in the Sound and available for harvest during this time of year.

The spill occurred, of course, just days before the scheduled opening of this fishery, which, as we know, had to be cancelled. This means not only lost jobs and income, but also lost export value to the United States.

But more valuable even than herring is the salmon fishery. All five species of salmon are supported by Prince William Sound and its river systems. Adult fish may be affected when they return to the Sound this spring and summer.

But juvenile salmon are now ready to enter the estuaries that have been damaged by the spill, and will begin feeding on resources that have been damaged. This is the time of their life cycle when they are most dependent on the marine environment affected by the spill, and there is a good chance that many of these fish will not survive.

The effects will be felt years down the road, we believe, when these fish are not available as adults for spawning, and the loss will likely ripple far into the future.

The effects on these natural resources and their human uses form the bases for the damage assessment work that will be undertaken by the co-trustees. In this case, NOAA acts on behalf of the Secretary of Commerce as a Federal trustee for natural resources in coastal and marine areas.

The Secretary of the Interior, the Secretary of Agriculture, and since this incident occurred in State waters, the State of Alaska, also have significant trustee interests.

NOAA's damage assessment authority is derived from CERCLA—as it is called—the Comprehensive Environmental Response, Compensation, and Liability Act—as well as the Clean Water Act, and other resource management statutes which provide the legal and procedural framework for the claims.

NOAA has four principal responsibilities during and after a spill. First of all, we provide scientific support to the U.S. Coast Guard On-Scene Coordinator (OSC). Specifically, NOAA Scientific Support Coordinator teams do a number of things: they (1) Model trajectories of the spill, to predict the future movement of the pollutants; (2)

Assess the nature, behavior, and fate of the pollutants. This includes chemical sampling and analysis, identification of toxic properties and alteration of physical and chemical characteristics under various environmental conditions; (3) Identify areas of biological importance requiring protection and recommend protective measures; (4) Provide liaison between natural resource, chemical, medical, and other scientific experts; (5) Advise on safety precautions for response personnel; (6) Help the OSC respond to inquiries from local, State, and Federal agencies for assistance in scientific studies and environmental assessments; and (7) Assist the OSC in addressing the scientific aspects of public concerns about the spill.

As a member of the Regional Response Team, NOAA also assists in the preparation of Federal recommendations to the OSC; as a Federal trustee for marine resources, NOAA is also responsible for identifying injuries to those resources, assessing damages associated with injury to the resources, bringing claims against the responsible parties for those damages, and using any money recovered through these claims to restore the injured resources.

And finally, as the Nation's principal marine pollution research and monitoring agency, NOAA examines the long-term ecological consequences of the spill.

Let me note we have about 25 experts on scene right now, including people from NOAA's Hazardous Materials Response Team; the National Marine Mammal Laboratory; the National Marine Fisheries Service Auke Bay Laboratory; the Office of Aircraft Operations; the University of Alaska Sea Grant Program; and the National Weather Service. NOAA's hazardous material response experts have conducted extensive overflights of the spreading oil in coastal reaches of Prince William Sound to monitor the slick movement and identify threatened areas.

I think it is fair to say we are among the leading experts in the world with regard to understanding the movements and characteristics of oil spills. And our trajectory models form an important tool in spill response.

Unfortunately, the impacts, I dare say, even at this early stage, are substantial, and I believe will grow worse. The ecology of Prince William Sound is especially vulnerable to an oil spill of the magnitude of the *Exxon Valdez*.

The innumerable rocky inlets and coves are traps where the crude oil is collecting and being deposited on the beach. Gravel beaches are particularly vulnerable to fouling. Because of many of the factors like this, the effects of the *Exxon Valdez* may be with us for quite a while yet.

Mr. Chairman, it goes perhaps without saying, that we, at NOAA, intend to be participants in the effort for the long haul. This is, without a doubt, the worst oil spill that has occurred in the United States' history, and NOAA, we believe, has substantial capabilities that we are now using to address the critical problems caused by the disaster.

We will continue to assist the Coast Guard, the State of Alaska, and private interests in containing, and, to the extent possible, repairing the damage done by the catastrophe, and of course we will be willing to answer questions here. Thank you, sir.

[The statement of Mr. Burton can be found at the end of the hearing.]

Mr. TAUZIN. Thank you, Mr. Burton. We also are pleased to have Mr. Makris with us, who is the Director of the Chemical Preparedness Prevention Office, and also Chairman of the National Response Team with the EPA. Mr. Makris, would you please summarize your testimony, sir.

STATEMENT OF MR. MAKRIS

Mr. MAKRIS. Yes. Thank you, Mr. Chairman. It is a pleasure to be here, and I appreciate your calling this hearing.

I am the chairman of the National Response Team, as I think it has been mentioned—very kindly, by both the Chairman this morning, as well as by Secretary Skinner and Admiral Yost.

The National Response Team is composed of 14 Federal agencies, with the roles delineated for each. Mr. Burton just very adequately described the particular and unique role that NOAA has in the areas of providing support and assistance to the on-scene coordinator as well as providing the continued responsibility as a trustee.

Within the agency, in addition to the National Response Team, EPA has an organization called the National Incident Coordination Team which has been activated for this event; and because this is primarily a marine environmental issue in many ways, we have, as a co-chair of that operation, a director from the Office of Water.

Mr. TAUZIN. I am sorry. Could you——

Mr. MAKRIS. National Incident Coordination Team is an internal EPA mechanism, sir.

Mr. TAUZIN. It is internal to EPA?

Mr. MAKRIS. Yes, sir. I was privileged to travel with Administrator Reilly, Secretary Skinner, and Admiral Yost to Alaska, and I was able to fly in a helicopter with the Governor of Alaska over the area affected by the spill. As we overflew this tragic scene, I could surely identify with the terrible problem that has been presented, environmentally, and otherwise.

In terms of the actions that need to be taken out there, EPA's role, as you know, under the National Contingency Plan, and within the NRT, is to support the designated on-scene coordinator.

The National Response Team, with those 14 agencies, clearly states that the on-scene coordinator in this event, because it is a coastal event, would be the Coast Guard. The national response mechanism mandates that a single point of contact must be made within the Federal Government to assure that there would be no question about who is in charge. Let there be none, in this case, for this response, the Coast Guard is in charge, and the other 13 agencies of the National Response Team—including EPA—are there to support the Coast Guard in this response effort.

It was clear, upon arrival in Alaska, that while a great many efforts might be taken by the agencies to cleanup this tragedy, an important effort would be to learn important lessons from it, to assure that it would not happen again. It clearly taxed the mechanisms that we have had in place, it clearly was an enormous spill, and it clearly needs a careful analysis by all of us.

Along those lines, Secretary Skinner, Administrator Reilly, and Admiral Yost were tasked by the President of the United States to deal, in detail, with the lessons to be learned from this incident.

They were charged with delivering a 30-day report which Secretary Skinner referred to this morning, to deal not only with an analysis of the response actions that took place, but also with the preparedness and contingency planning for the event.

That report, which will summarize lessons learned and deal with a complete preliminary analysis of this effort, will in fact be due to the President within 30 days.

We would also expect to have the industry's input—I heard the Chairman talk about their own studies—and we would expect that this could all be consolidated. It is our view that we must continue to learn lessons from this incident including such important issues that have been raised in this hearing today regarding burning, regarding the use of dispersants, and perhaps the use of biological agents that might in fact help to assist in a faster and prompter recovery.

In addition. There is need to continue to review the technology of oil spill cleanup. I understand that Admiral Yost said this morning there is no oil pick-up magnet, there is no such thing, but we must continue to strive to examine what might be out there, that might be useful in this area.

The last responsibility that the Environmental Protection Agency has in the direct cleanup would be to participate in any way with support to the trustee agencies and the United States Coast Guard as they carry out their assigned responsibilities.

One major difference in this issue will be that the lessons learned, and the inadequacies discovered—both technologically and managerially—will in fact be carefully followed up as a result of this obligation to report to the President. We would expect, perhaps, some new research to be conducted in the areas of oil spill cleanup. Thank you, Mr. Chairman.

Mr. TAUZIN. Thank you, Mr. Makris. I also welcome Mr. David Olsen, who is the Acting Assistant Director for Wildlife Resources for the U.S. Fish and Wildlife Service. Mr. Olsen.

STATEMENT OF MR. OLSEN

Mr. OLSEN. I appreciate the opportunity to come before you this afternoon and I will summarize my comments.

The oil spill has had an adverse and often fatal impact on many species of wildlife in the Prince William Sound. The Fish and Wildlife Service has management authority over migratory birds and sea otters, while the National Marine Fisheries Service has authority over other marine mammals and the fisheries resources of the area.

None of the bird species or the Alaskan population of sea otters is listed under the Endangered Species Act.

The scale of the spill's impact is just now starting to become clear. Our preliminary beach surveys have found 80 oiled birds per 100 meters of beach on some islands in the path of this spill.

It is highly unlikely that most oiled birds can be recovered and cleaned, although we are making every effort to do so.

We anticipate that 3,000 to 5,000 sea birds could be recovered and cleaned; if not recovered and cleaned, a high percentage of the birds that become heavily oiled will not survive.

However, at this point in time, we have no estimate of the number of birds that may be killed by the spill. Eagles have been observed scavaging on oil-killed birds. Although no dead eagles have been found, the Service believes that toxicity connected to oil-soaked birds could kill bald eagles. There are approximately 750 eagles in the Prince William Sound.

An aerial survey conducted after the spill revealed about 90,000 sea birds in the Prince William Sound. Half of them were in the area impacted by the oil. Aerial surveys are not expected to produce accurate total population numbers since many of the birds will not be seen.

In addition, over 100,000 birds nest on the Chiswell Islands, a group of islands within the Alaska Maritime National Wildlife Refuge, to the southwest of the sound. The first strings of oil have already reached these islands.

The total population of sea otters in the Sound is estimated at about 10,000 animals. The heaviest concentration, estimated at 4,000 to 5,000, is located in the southeast portion of the Sound. Fortunately, this area was not impacted by the oil.

Approximately half of the sea otter population is likely to be impacted by the spill. If the spill changes direction and goes southeast, the situation could become worse.

The Fish and Wildlife Service presently has 24 people committed to monitoring cleanup, bird and otter rescue activities. We have two chartered boats and 16 people working to locate oiled otters, and bring them to the sea otter cleaning station operated by Exxon in Valdez.

We are operating constant aerial surveys of the sound to monitor the movement of oil and its relationship to the sea bird and sea otter populations.

Under current wind conditions and tide forecasts, the leading edge of the spill could reach Afognak and Kodiak Islands this weekend. Service personnel are currently identifying and prioritizing areas for protective efforts on these islands.

Two Service vessels are moved into the area to support the damage assessment activities. This will consist primarily of large-scale surveys to document the losses of sea birds and sea otters. An assessment of natural resource damages under the provisions of the Comprehensive Environmental Response, Compensation and Liability Act is being initiated. It is not possible to estimate the extent of these losses at this time.

This concludes my statement.

[The statement of Mr. Olsen can be found at the end of the hearing.]

Mr. TAUZIN. Thank you, Mr. Olsen. Mr. Makris, you alluded to the statement earlier made in these hearings, that there is no magnet to pick up oil, and that in fact we have a whole array of different approaches to dealing with an oil spill, including boom and pickup, and dispersants, and eventual cleanup of beaches, and different ways of dealing with it.

Do any of your departments allocate money to R&D in this critical area?

Mr. MAKRIS. Let me speak to that, if you do not mind. Obviously not enough. For the most part, the technology, at least within the Environmental Protection Agency, and the Coast Guard, has not progressed at the rate it might have.

Mr. TAUZIN. It really has not.

Mr. MAKRIS. That is right.

Mr. TAUZIN. We are still using the same technologies that we read about years ago.

Mr. MAKRIS. I think we have moved forward from a bale of straw and a bulldozer, but I am not sure how much further, sometimes, when you look at a spill like this. But this kind of a spill presents the worst possible situation. It is a choppy, open sea environment with a shoreline not far away, which presents both of the big problems—hard to catch, and damage when it gets away from you, rather than being able to roll out into the ocean and perhaps let nature take its cleanup course.

In a conference in San Antonio specifically dealing with oil spills and oil spill technology, it was noted, by some of the experts there, that the technology had not advanced very far, but it is not only the Environmental Protection Agency, NOAA, Commerce, and Coast Guard's responsibility. It also is a major responsibility of industry to deal with the development of these technologies as well.

I think that part of the output in the lessons learned will be to identify the technological gaps, managerial gaps, organizational gaps that exist, and to try to assign them, and to hope that industry will stand forward, and if they do not, for the Federal Government, and other governments, to kind of push into those areas of importance.

Mr. TAUZIN. Well——

Mr. MAKRIS. But I would hope that industry—excuse me, sir.

Mr. TAUZIN. If I can follow up on your point—and it is a good one—that industry has—if they can have the responsibility for the enormous cost of cleanup, certainly they would have an interest in any new technologies that would not only cut that cost down but do a better job, and prevent some of the damages that might later have to be mitigated.

It seems to me that maybe I can get you to make a recommendation to us. While we are putting together a better oil spill liability fund, should we not dedicate some portion of it to extensive R&D in this area?

Mr. MAKRIS. It would seem to me that there would be a great advantage to dedicating some funds, but not if it tends to cause industry to stand back and let the Government carry the whole ball.

Mr. TAUZIN. I understand that.

Mr. MAKRIS. It seems to me terribly important that one recognize how a few million dollars, spent over each of the last few years, is a pittance in comparison to the enormous cost of this event. But we who have been in the natural disaster business, which I was in before I joined EPA, have always noted that there is plenty of money to clean up and never enough money to get ready.

Mr. TAUZIN. Would you like to jump in here, Mr. Burton?

Mr. BURTON. Maybe just a little bit. There is a heck of a lot we do not know; on the other hand, there are things that we do know. And I think we would be remiss if we did not point out that there has been a fair amount of Federal resources that have been dedicated to understanding basic things like how oil interacts with marine water and marine life.

Indeed, in the Gulf of Alaska, there is a recently published volume, a copy of which we can submit to the Committee, which makes an analysis of this very sort of thing.

NOAA's OCSEAP program—Outer Continental Shelf Environmental Assessment Program, if I recall the acronym—which is pass-through funded by the Department of the Interior's Minerals Management Service has dedicated over the years close to $120 million to this sort of understanding, mainly to provide baseline environmental information related to understanding and predicting the possible effects of future oil exploration and development.

Mr. TAUZIN. Well, let me get specific here. Our staff has developed a chronology from Coast Guard reports and media reports. It indicates that at 6:00 p.m. on Friday a dispersant test was conducted. Our report indicates poor results.

Our report indicates that, again, at 8:00 p.m. on Saturday another dispersant test was conducted from a C-130 aircraft, again not successfully.

Again our report indicates that at 4:00 p.m. on Sunday, another dispersant test by a C-130 aircraft was then conducted and considered a success. What is strange to me, and what I have found strange in the testimony of the Chairman of Exxon, is that here we are faced with this enormous spill, and we are out there testing the capacity of dispersants to work in that environment.

I mean, the extraordinary thing—and I hope you are impressed with the same feeling I got—was that the time to be doing testing? Should not the testing of dispersants in that environment have been conducted earlier, and shouldn't we know what to expect?

And by the time a spill occurs, ought we not be prepared to make a decision—use it or don't use it? What is wrong with what happened here? Am I correct, that we were literally doing our testing at the very wrong time, when we should have been applying the lessons we should have learned in tests conducted some time earlier?

Mr. BURTON. I will respond, just briefly, to that, Mr. Chairman. It is always easy to be the Monday morning quarterback.

Mr. TAUZIN. I understand.

Mr. BURTON. Notwithstanding that, I can say that NOAA has been a part of significant research in this area. Indeed, there was a National Academy of Science study that was conducted over a period of a couple years with regard to the effectiveness of dispersants used on oil spills.

As I say, we participated in that, and as has been alluded to earlier in this hearing, the results of that study were that they are very effective. They can be effective. They can be less effective under certain circumstances, and I am not going to sit here and second guess the decisions made by the Coast Guard and the local authorities.

Indeed, we have learned a lot. I think we can better construct contingency plans to maybe tighten the latitude in which decisions are made in these sorts of circumstances.

Mr. TAUZIN. But let me be specific. You are not prepared, with the knowledge you have about this one little area—dispersants—to recommend it for use in a spill like this, or recommend that it not be used? Yes or no; go, don't go decision?

Mr. BURTON. I think we can make that sort of recommendation. There is one other issue that has not been alluded to here, though.

Mr. TAUZIN. Well, let's not leave, let's not go further.

Mr. BURTON. I am sorry. Excuse me.

Mr. TAUZIN. If you are prepared to make that recommendation, what was it? Was it a go decision, or don't go decision?

Mr. BURTON. We have been a part of a study in which it was described that yes, it makes sense to use them.

Mr. TAUZIN. All right. Assuming then, that this study did occur prior to this spill, that the recommendation was to use it, why didn't we just use it rather than conduct three days of tests before the weather got so bad we could not do anything?

Mr. BURTON. Again, it is difficult for me, Mr. Chairman, to understand all the dynamics associated with that particular situation, and the set of factors involved, and the contingency plans, the law allows for latitude to be exercised on the part of the On-Scene Coordinator to consider all that.

One of which, Mr. Chairman, that has not been alluded to, is, frankly, concerns on the part of the populace in the local area, frankly, the fishermen, as to the use of those dispersants. That needs to be understood as a factor.

I do not know how heavily it was weighed. I was not there. I do not know all the considerations that were made.

Mr. TAUZIN. Well, that is what is so terribly confusing to us, and we need to get that straight. My understanding was the State participated in the contingency plans and that dispersants were a part of those contingency plans. You tell us, now, that you had done studies on it prior to this time, and are willing, now, to say that you would recommend that it be used. And yet, instead of using it, we spent three days testing, until it got too late to be useful any more.

It seems to me it points to a glaring deficiency in the manner in which response is carried out. Now you fellows are part of a National Response Team, and one of the things I hope you will do for us following this hearing, is to not only make a report to the President, but to be specific to us about what went wrong here, and I suspect I just put my finger on one of them.

If contingency plans provide too much latitude, that we have got to worry about bureaucracies deciding whether to use them, or not, in the middle of an emergency, after you have already recommended they should be used, then we have a terrible problem with the way we have structured those plans.

Am I wrong, Mr. Makris?

Mr. MAKRIS. Mr. Chairman, if I may. I think that the plan specifically identified the use of dispersants in two of the three zones under very specific approval prerogatives, primarily because you had to relate it to the particular situation at the time.

Dispersants are kind of fickle animals. Sometimes they work and sometimes they do not. It depends on the temperature of the water and the height of the seas.

Mr. TAUZIN. It is like detergents in your laundry, right?

Mr. MAKRIS. Yes, sir.

Mr. TAUZIN. I mean, depending upon what kind of laundering, cold water and hot water, and everything else.

Mr. MAKRIS. But they also sometimes leave behind some toxic or other adverse environmental effects, and there is great care taken in the approval process for particular kinds of dispersants. Frankly, for some of those zones, there were pre-approved dispersants which could be used, however these were not in place in the open sea immediately around where this accident occurred.

I think that secondary the test does have to prove that it would be effective under the current sea conditions. As you said, twice it did not work very well, and the third time it worked a little bit. Then the wind came up and it would not have worked very well in a choppy sea.

So all those considerations, it seems to me, get cranked in, and, sitting in Washington, D.C., I can only say that it was an experienced on-scene coordinator with the advice of NOAA, and others, who watched that test, and decided, in conjunction with local decision-makers, that it should not proceed.

I think lessons learned must include the issue of dispersants.

Mr. TAUZIN. Mr. Chairman, do we have too many generals in this field?

Mr. MAKRIS. Oh, I believe that there is only one general on this scene, sir. It was the on-scene coordinator who would make the final decision to use or not use, seeking consultation from the trustee agencies and the State.

Mr. TAUZIN. How is your response team coordinated? Do you speak with one voice when it comes to making recommendations?

Mr. MAKRIS. The regional response team in the field is advisory to the on-scene coordinator.

Mr. TAUZIN. Only advisory?

Mr. MAKRIS. Yes, sir.

Mr. TAUZIN. The on-scene coordinator then decides?

Mr. MAKRIS. Yes, sir. For inland spill, an EPA on-scene coordinator would make the decisions with the advice of the Coast Guard, and others. In this instance, it was a Coast Guard OSC with the advice of NOAA's special scientific coordinator, and EPA, and other agencies.

Mr. TAUZIN. I have rarely bumped into situations where there have been interagency overlap jurisdiction, where there has not been some turf battle. Are the turf battles settled here? Is everybody working together?

Mr. MAKRIS. It seems to me that for the most part the roles are pretty clear. They are specified by regulation. Most of the people at the national level have been working together for a long time, and I think that the old statement about if we do not hang together, we will surely all hang separately, is very valid in this case.

I think the fact that the National Response Team mechanism has existed for more than 20 years is significant. It was originally created not for an American incident at all, but to be sure that if

we had an American incident, we would have a competence, and that roles would be clear and understood.

I have with me Mr. Ken Biglane who was the first Chairman of the National Response Team, some 20 years ago, from your State, sir.

Mr. TAUZIN. He must be a good fellow.

Mr. MAKRIS. And it is our judgment that you will never eliminate all turf—that is not possible—but I think when you do have an event like this people pull together. I think we will have some turf as we develop this report, but I think we will reconcile those issues as well, sir.

Mr. TAUZIN. Mr. Olsen, you have been——

Mr. OLSEN. Yes. Speaking for the National Park Service, the Fish and Wildlife Service, and the State of Alaska, I think there has been excellent cooperation at the field level.

Mr. TAUZIN. Now you also all alluded to the work that is being done to save what can be saved of oil damaged animals and birds. In that regard, I have seen, on television, quite a bit of volunteer efforts. Organizations are apparently on the scene as well as our Government agencies. Are those private organizations coordinated under your umbrella, or are they operating separately?

Mr. OLSEN. We have some volunteers who are up from the State of California. We have volunteers from Alaska. One of the problems is we have many more people who want to volunteer than we can accommodate. When you visualize trying to operate a cleanup organization 25 or 30 miles from Valdez, on four boats, and operating in cold water, with rocky cliffs, and oily situations, you can see how we could run people all over each other if we are not careful.

So I think we are utilizing volunteers as much as we can, and they are pretty effective.

Mr. TAUZIN. One final thing. I realize there are long-term consequences no one can measure now—but at least in the short-term, when can we expect some definitive report that details the extent of the damage to the fish and wildlife of the area?

Mr. OLSEN. From our standpoint, we have a daily report that comes in, and we will continue that probably for the next several months, that entails every sea otter that was picked up, and every bird that was picked up, those were cleaned, sea otters that might have been shipped elsewhere, and anticipated problems on the island of Kodiak. So we, on a daily basis, keep on top of it.

Mr. TAUZIN. Mr. Burton.

Mr. BURTON. We are doing the same thing, working with the Department of the Interior. We get the same daily reports which are coordinated and filed, and as we can, we try and make economic assessments of value.

Let me just mention a word with regard to the more major work product that we are coordinating with the trustee agencies, and that is the coordination of a damage assessment plan, which is a major effort, which will take a much longer time, and cost, frankly, several millions of dollars to develop.

That will be the basis upon which natural resource damage claims are made to responsible parties, and we can have a better grasp on the consequences of the action.

In the meantime, though, we will do the best we can, indeed, on a daily basis, to assess and report the immediate damages as we observe them.

Mr. TAUZIN. And finally, in regard to the expenses you are incurring, both with the plan you talked about as well as with the expenses on a daily basis, are those expenses recoverable from the oil spill liability fund, or is that part of your regular budget?

Mr. BURTON. Speaking for NOAA, and I would assume for the other trustee agencies, the mechanisms will be similar. In one respect I know they will be.

With regard to our immediate expenses, we have established an account within our budget which is charged against the 311(k) budget for which we will bill the Coast Guard and for which they in turn seek reimbursements.

With regard to the costs that we incur for the more major damage assessment plan, we have been in consultations with the other trustee agencies including the State of Alaska as well as Exxon, and are on the verge of establishing a contractual understanding with those parties, which will establish an assessment fund from which we will draw in the next several months, and years, to fund the assessment work that may take anywhere from 3 to 6 years.

Mr. TAUZIN. Well, again, as we put together oil spill liability legislation, it would be very important for us to have some clear understanding of the problems you have experienced in this area, and how those might properly be addressed in that legislation.

It is just you and I, fellows. Thank you very much for your testimony, and we very much appreciate today, and hearing from you in the future. We would like to be in the loop, if you will, of those reports that you are issuing, as they are issued. Thank you very much.

Mr. TAUZIN. The final panel will consist of Mr. Quinn O'Connell of the Trans-Alaskan Pipeline Liability Fund, and Mr. Pete Isleib, Prince William Sound Aquaculture Association of Cordova, Alaska. And if you gentlemen will please, again, summarize your testimony, and with the knowledge that your full written testimony will be made a permanent part of our record.

We will begin with Mr. Quinn O'Connell of the Trans-Alaskan Pipeline Liability Fund. Mr. O'Connell.

STATEMENT OF A PANEL, CONSISTING OF QUINN O'CONNELL, TRANS-ALASKAN PIPELINE LIABILITY FUND; AND PETE ISLEIB, PRINCE WILLIAM SOUND AQUACULTURE ASSOCIATION, CORDOVA, ALASKA

Mr. O'CONNELL. Thank you, Mr. Chairman. I appear here as counsel for the Trans-Alaskan Pipeline Liability Fund. This Fund is a nonprofit private corporation established by Congress in 1973 as part of the Trans-Alaskan Pipeline Authorization Act.

Among other things, it is provided in that Act, that the owner and operator of a vessel that spills TAPS oil, that is, oil that has been transported by the Trans-Alaskan Pipeline, shall be strictly liable without regard to fault for the first $14 million worth of damage that results from that spill.

The Fund itself is made strictly liable for any damages in excess of the first $14 million up to a $100 million maximum for any one incident.

Strict liability ceases when the oil is first brought ashore at aport under the jurisdiction of the United States.

In any case where strict liability is imposed and the damage is caused by another person's negligence, the owner and operator of the Fund—I mean the owner and operator of the vessel, and the Fund, as the case may be, shall be subrogated under applicable State and Federal laws to the rights of those claimants who have received compensation.

The Fund was funded by collecting 5 cents per barrel from the owner of the oil at the time it was loaded on a vessel. The collection ceased when $100 million was accumulated and would be resumed if the accumulation in the Fund falls below $100 million.

As I mentioned, the Fund is a nonprofit corporation administered pursuant to regulations prescribed by the Secretary of the Interior.

Under these regulations, the board of trustees of the Fund consists of one person designated by each of the pipeline right-of-way holders and three persons designated by the Secretary of the Interior, at least one of which is recommended by the Governor of Alaska.

Under these secretarial regulations other items that are addressed are the nature of the investments the Fund is allowed to make, the general procedures for making claims against the Fund, definition of terms, and other pertinent data.

As required by the Secretary's regulations, the Fund has also promulgated its procedures for settling claims. Copies of the pertinent statutory provisions, the Secretary's regulations, and the Fund's procedures have been submitted to the Subcommittee.

I would be happy to answer any questions you might have.

Mr. TAUZIN. Thank you very much, Mr. O'Connell. Mr.——

Mr. ISLEIB. Isleib.

Mr. TAUZIN. Let me see if I can get it right. Isleib.

STATEMENT OF MR. ISLEIB

Mr. ISLEIB. Mr. Chairman, my name is Pete Isleib, and I am a fisherman from Prince William Sound. I have been a fisherman there for over 25 years.

I have done more than fish. I have served on many civic and resource agencies. Normally, at this time of year, I would be out fishing. I would be fishing right within sight of where the *Exxon Valdez* is—or where it was, up until yesterday.

Mr. TAUZIN. What would you be fishing, Mr. Isleib?

Mr. ISLEIB. I would be fishing Herring Roe on Kelp Pound Fishery for herring eggs.

And so it feels like I have come full circle. Almost 20 years ago I wrote Senator Bartlett a letter about the marine leg of the pipeline, complaining—I guess I was complaining—wondering why there was not an alternate to that pipeline other than going to the marine system.

We were on a continent. The oil is going to the Midwest. Well, the fishermen—I guess I was among the fishermen that got concerned, and we went to court. We took that, and we were winning in court, and it was taken away by the Senate. That is a long story. We ended up getting the pipeline. Right after that, I was the principal observer, principal investigator in assessing the marine mammal and bird populations in Prince William Sound under contract to the Fish and Wildlife.

It seems interesting to hear the Fish and Wildlife representatives talk about the numbers of critters that may be impacted by the spill, Mr. Chairman, but when the National Audubon Society called me up here 10 days ago, I gave them almost identical numbers, that he mentioned, and I even gave them more, which I think will—future numbers, which will probably be more pertinent in the future.

I have served on the city council in Cordova, and I have served on the board of fisheries, a regulatory body for all of Alaska's fisheries. I have been involved in—and I am presently in town, unfortunately, because I am not fishing, but for the International North Pacific Fisheries Commission I am adviser, in that body with the Japanese and the Canadians.

I am also involved with the North Pacific Fisheries Management Council as an advisor. So much for my personal record. I have a comment that was turned into me by the city manager of Cordova last night, and I would like to read it to you.

It is a statement of the City Manager of Cordova, Donald L. Moore, April 5th, 1989.

"The people of Cordova, Alaska are privileged to live and work in one of the two most beautiful places on Earth—the formerly pristine Prince William Sound. As the world knows, on March 24th, 1989, the fully loaded tanker *Exxon Valdez* hit a well-marked reef near Bligh Island and spewed 10.5 million gallons of crude oil into the sound. We are now experiencing a catastrophe of unprecedented impact on our environment, our economy, and our way of life."

"Most unfortunately, the impact is worse than it needs to be because we trusted those who profess to know how to triage their own negligence."

"In the early phase of the spill, we, in Cordova, expected Exxon to mobilize and clean up the spill, and begin assisting Cordova and other sound communities with recovery efforts."

"The truth is that the people of Cordova reached into their own treasury and began cleaning up the spill and protecting uncontaminated areas of the sound while Exxon helped its out-of-town experts react."

"It is not a joke that the inevitable souvenir T-shirts were deployed before the containment boom was around the *Exxon Valdez*. In our view, Exxon has mustered only a fraction of its available resources to clean up the spill."

"The City of Cordova and its two villages in the sound are totally dependent upon commercial and subsistence fishing for our existence."

"Cordova's annual operating budget depends upon direct program revenues from commercial fishing for one-third to one-half of

its operating revenue. Indirectly, the entire city economy is supported by fishing. In 1988, Cordova, a town of 3000 persons was the eighth largest fishing port, by value, in the United States. We have no pipeline terminal or tour ship industry to offset loss to our basic industry."

"On April 3rd, 1989, the Alaska Department of Fish and Game announced that our herring fishing days were over. The impact of the spill on the salmon fishery is yet to be known."

"The *Exxon Valdez* disaster threatens a number of public-private economic development projects for Cordova such as our dock-gurry line, fish processor construction, harbor improvements, and other public work projects such as bonding for our elementary school construction."

"We also greatly fear the socioeconomic displacements that will afflict our community as a result of this tragedy. The loss of jobs, the loss of a way of life, and the attendant expectations of perhaps a generation of Cordovans are at risk. The people are afraid and they are frustrated. I will assume, for now, that Exxon will be driven by fundamental fairness to honor its pronouncement to make us whole."

"I appeal to the world to watch. I referred to Prince William Sound as one of the two most beautiful places on Earth. I leave it to each of you to individually decide which the other one is. We all have a special Shangri-La in our hearts and minds. Think of yours when you contemplate what happened to ours."

I wish to thank Don Moore for an emotional comment, and it was from the heart, and it reflects why many men have been wearing black armbands and crying in the last couple weeks.

Exxon happened to call Don Moore last night. Believe it or not, it was the first call that the City of Cordova had heard from Exxon. There has been an awful lot of smoke. There is a fire there, but there is a lot more smoke for Exxon, really. It is not all what they are saying it is, meaning what they have done.

They have an address but you seem to have to call them, I guess. There are various cries for help. I would like to reflect a couple that I have got, and I will put in the record for you at a later time.

I am down on the record as representing the Prince William Sound Aquaculture Corporation. Well, I was one of the founding fathers and am still on the board of directors. But the organization operates three world-class hatcheries, three of the five biggest in the world in Prince William Sound. The value of their return this year is over $50 million, or hopefully will be, on their last year's prices.

They, in their fight to save some of the hatcheries, have had almost insurmountable hurdles to get the equipment. I could relate some interesting stories of where airplanes were usurped and freight was unloaded and put on a plane that Exxon chartered, just so that they could say they handled it.

There is tremendous frustration by the administrators of the organization, and they reached into their own budgets for millions of dollars, as did the City of Cordova, to assist, in its own budget, for millions of dollars.

It is not saying that they will not be reimbursed at some point in time. It is just that they had to do it then, and it was only last night Exxon called. Twelve days later.

I would like to relate something that also happened several years ago. It seems that almost 12 years to today, we were having a symposium in Cordova. It was hosted by SEA GRANT, and by the Cordova District Fisheries United.

That was well attended. There was probably 150 people there. I was one of the host of panel members. Then-Admiral Jack Hays, who later became Commandant, was a panel member with me, and we were arguing and discussing, and talking about the route.

And there was promises from him as well as other—Arco and Exxon, and Alyeska people—that let us use—let us—the Lieutenant Governor today used the word "betrayed." I think the betrayal is not from the drunken sailor. The betrayal is from the adequacy of the industry and Government to live up to their promise to be able to handle the magnitude of that sort of spill.

At this symposia there was a story—a hypothetical story—presented by then-Representative Keith Specking of the State legislature. He built a scenario of a tanker coming out of Valdez arm and smacking right into Bligh Island reef.

I have the story on a desk back in Cordova. It is interesting to read through it. Only happily, the ship burst into flame, and the sound was, for the most part, saved.

And that scenario was one that he read to the audience at that symposium. There are many tanker stories that have not been mentioned here, or other places—tankers outbound out of Prince William Sound. One here a few years ago, and they lost power, complete power, and this captain was a hero. He turned the thing hard over to the left, and made a U-turn and came back into the sound.

He would have normally driven straight out of the sound and come back in and hit Montague Island, and the whole outer part of the sound would have been awash in oil. There would have been no way to save the vessel because it did not regain power until 16 hours later.

Even with tugs and other vessels nearby there was just—the seas were 50 to 60 knots, and unable to get a line on a tug like that, and it was only half an hour from the rocks on Naked Island. Near where this tanker is now being salvaged is where that occurred, that—I am not sure of the exact year—it might have been about 1980.

There are several other stories of tankers losing power. There are a couple of tanker tails of them finding themselves off British Columbia, or Washington State, and listing. They have lost large quantities of oil from a cracked seam. And nobody did ever see that oil again. It just happened to dissipate 200 miles offshore somewhere. But I am sure there were a few cries in the wilderness.

They may not have been human, but they were cries in the wilderness.

The fishermen have been concerned about the Alyeska terminal, and its chronic pollution of Port Valdez. They have been—the Cordova fishermen have been after EPA and our own State Department of Environmental Conservation to work to clean up the act.

Alyeska has not spent most of the money it was supposed to spend, to properly treat its ballast water, and the aromatic hydrocarbons leaving that plant are beyond air quality regulations.

This spill is now headed west, or, a good hunk of it, and it is going toward Kodiak. Kodiak is the first port in the Nation and ex-vessel—dollars.

It swings by Kodiak—if it goes in a gyre, as I suspect it will, it will end up into the eastern Bering Sea, the Aleutians, and Bristol Bay.

[The statements of Mr. Isleib and Mr. Curtis can be found at the end of the hearing.]

Mr. ISLEIB. Now, let me put this into perspective, what this means, Mr. Chairman.

Mr. TAUZIN. Please.

Mr. ISLEIB. This time of year is the most critical time of year. I am not a marine biologist. I am an ornithologist, but not a marine biologist. But from what I understand from my associates, that it is not just the fry salmon that are leaving the streams and the hatcheries. It is not just the herring eggs that will be hatching and the little larvae floating away down the bay. It is many other—some of the bottom fish. It is the crab larval that will—their eggs are hatching. The larvae will float near the surface waters and drift.

And these larvae, these early life stages, are especially susceptible to petroleum hydrocarbons. All the data that was shown us years ago, back in the early 1970's, was available, and said that it was a critical time. And I do not think we will know the full tale for a decade or more.

The salmon fry alone leaving Prince William Sound for 1989 season, we have about 675 million little fry, little salmon, smelt salmon, leaving Prince William Sound from hatcheries alone, and hundreds of more millions leaving the streams.

And they will go in the same direction and the same trajectory as the oil, and they will be following them within days because they are coming out of the streams—as a matter of fact the hatcheries are holding them right now to keep them from releasing them in the environment, and they will be going in the same trajectory, westward through the Gulf.

Mr. TAUZIN. How long can you hold them? You said before they must be released.

Mr. ISLEIB. Well, it depends on the species and depends on how much capacity they have.

Mr. TAUZIN. Well, let's take the salmon——

Mr. ISLEIB. I would say only a short time, in a matter of weeks, that they can hold them. I would say that they would have to start releasing them somewhere, whether they transport them somewhere to release, which creates a whole different scenario or problem.

Mr. TAUZIN. Sure.

Mr. ISLEIB. But I would say they have to be releasing them within a couple weeks.

And that oil is going to be there a while, and it is not just release them and they go to sea, and they drift out where the oil is. They are going to have to be leaving on the planktonic life within Prince William Sound for several weeks before they go to sea.

They will have to be living within the upperements of the water column feeding on planktonic life, and that planktonic life catches it from the oil and is impacted by that oil.

Mr. TAUZIN. Let me ask you something. You all, as representatives of the Aquaculture Association, are you all receiving any kind of advice from our Federal agencies on exactly how to respond in terms of withholding releases, or perhaps whether or not you ought to release any given area?

Mr. ISLEIB. I am afraid that as far as that goes, we are the experts.

Mr. TAUZIN. You are ahead of them?

Mr. ISLEIB. Yes. And I do not profess to represent Prince William Sound Aquaculture, but the people we hire are the experts, and they are astute people.

Mr. TAUZIN. Let me ask you this. You heard the Lieutenant Governor and the Mayor of Valdez earlier today testify. I believe you were here most of the day.

Mr. ISLEIB. Yes.

Mr. TAUZIN. And you heard them say that they did not hear too many words of comfort. Although I thought I heard some, they did not hear too much in the way of comfort that the damages that their citizens—particularly those who must depend upon the resources of the sea—were going to be fully compensated. Or they were not going to be compensated before they incurred significant damage.

Have you gotten a different impression, or do you agree with the Governor and the Mayor?

Mr. ISLEIB. I agree with the Mayor, wholeheartedly. I am from Connecticut originally, not Missouri, but "I've still got to see it to believe it."

Mr. TAUZIN. All right.

Mr. ISLEIB. Prince William Sound Aquaculture Corporation operates just—well, I think the oil has not reached it, they have booms in front of it—but the largest salmon hatchery in the world.

And it is operated by—I mean, it is directed by fishermen. The board of directors is made up of fishermen. Fishermen started this organization. It is a private, nonprofit organization.

Mr. TAUZIN. I got you.

Mr. ISLEIB. And we did it because we were concerned about the ability of the wild systems to maintain themselves during harsh seasons. We had the earthquake in 1964, and that even-year cycle was very damaged after that. The even-year pink salmon which is every 2 years. And that is the reason we put the hatcheries in. And it was really—in 1974, when we started the hatchery program, it was apparent we were going to need it because we might lose them.

Mr. TAUZIN. Well, it is certainly true, now, that you need it more than ever, I suppose.

Mr. ISLEIB. Yes.

Mr. TAUZIN. Mr. Isleib, let me mention to you that, you know, the area I represent, Louisiana, is losing about 70 square miles a year in coastal erosion, and the story you tell about—particularly the letter you read from Cordova—I guess is one I have had repeated a 1000 times from people who live along that coast and are watching it diminish, and watching those resources lost, and the

livelihoods and heritage destroyed in the process. It is one I am very sensitive to and one I am very concerned about.

I would like, though, to turn to this TAPS fund, to see whether or not we have prepared for it properly, whether we are going to respond to it in a good way.

There was some concern expressed earlier, that the TAPS fund set some sort of cap on liability. That is not true, is it? It only sets a cap on no-fault liability to the operator of the vessel. The vessel owner who dispersed this oil—Exxon—remains liable for the damages, period, and they have assumed that liability.

Is that correct, Mr. O'Connell?

Mr. O'CONNELL. That is my understanding, Mr. Chairman. The TAPS Act which creates the Fund is very limited. It establishes strict liability without regard to fault for all vessel owners and operators who spill TAPS oil. The basis of the $14 million was at the time that it was enacted, this law was enacted, that was the amount of financial responsibility that was required under the Federal Water Pollution Control Act.

Mr. TAUZIN. That is right. But that limitation has no——

Mr. O'CONNELL. And that is just where——

Mr. TAUZIN. No fault.

Mr. O'CONNELL. That is just no fault. You have got to pay it no matter what. That is right.

Mr. TAUZIN. Put that up to begin with. Beyond that——

Mr. O'CONNELL. Beyond that, they created the Fund.

Mr. TAUZIN. The TAPS Fund is created to cover additional expenses, and you have full rights to go against the party who has caused the damage, for recovery to the Fund of the balance you pay out, is that correct?

Mr. O'CONNELL. Yes. You have the right of subrogation for any of those claimants to go against anyone who might—whose negligence under the State or Federal laws may have been responsible for the spill.

Mr. TAUZIN. Now, as I understand the Chairman's bill, that fund, and others, will all be accumulated into one master program under that bill, and therefore the rules are going to change.

But if the rules did not change, and this fund was called upon to make expenditures to assist in all of the damages that Prince William Sound has experienced—and that they will continue to experience in terms of long-term damages to the livelihood of people in that area—as I understand it, you are authorized to go and assess that 5 cents a barrel again, and to recover—to keep that fund at $100 million. Is that correct?

Mr. O'CONNELL. That is correct. If we fall below $100 million, we start collecting 5 cents a barrel until we get back——

Mr. TAUZIN. That is with or without the right of subrogation. What happens if you do start collecting it again, you raise the money back up to $100 million, but you also recover whatever you spent from Exxon by right of subrogation? Now what happens under that circumstance?

Mr. O'CONNELL. Well, at the moment, we have more than $100 million in the fund——

Mr. TAUZIN. Interest bearing.

Mr. O'CONNELL [continuing]. And since, in this incident, we cannot be liable for any more than $86 million, the difference between $14 million and a $100 million—if we paid out the entire $86 million we would still have money in the fund above the $100 million.

Mr. TAUZIN. So you would just simply keep it in the fund and quit collecting at that point?

Mr. O'CONNELL. That is right.

Mr. TAUZIN. All right. Who owns Alyeska?

Mr. O'CONNELL. Alyeska is a corporation owned by the seven holders of the right-of-way for the Trans-Alaskan Pipeline.

Mr. TAUZIN. And who are they?

Mr. O'CONNELL. Now let me think. They are the pipeline subsidiaries of Unocal, Exxon, Arco, BP-America, Mobil, Phillips. One more.

Mr. TAUZIN. You did awfully good.

Mr. O'CONNELL. And Amerada Hess.

Mr. TAUZIN. Amerada Hess. They are the contributors to the TAPS fund, aren't they?

Mr. O'CONNELL. No. The contributors to the TAPS fund are the owners of the oil at the time that the oil is loaded on board a tanker. Alyeska only runs the pipeline. They do not own any of the oil.

Mr. TAUZIN. So it could be two separate parties. Contributors to the TAPS fund could be separate parties from the Alyeska——

Mr. O'CONNELL. Yes. There are many contributors to the TAPS fund that do not have any interest in the pipeline.

Mr. TAUZIN. And yet you have some that overlap?

Mr. O'CONNELL. And then the producing companies that are affiliated with the pipeline companies, like Exxon, or Arco might have a production company. They may have paid money into the fund, but their pipeline subsidiary did not, technically.

Mr. TAUZIN. So as we sort out all the responsible funds here—Alyeska is out there with some responsibility, the TAPS fund is out there with some responsibility, the owner of the oil, the tanker, is out there with responsibility, all of whom can respond, in some respect, to the damages that this oil spill has incurred.

Is that correct?

Mr. O'CONNELL. That is certainly potentially correct, yes. I do not want to say who is liable for what, but that is true.

Mr. TAUZIN. I understand. Now that Exxon has, indeed, assumed responsibility for the cleanup, the obvious question is what role will the TAPS fund play in the aftermath of the incident?

Mr. O'CONNELL. Well, I think that remains to be seen. Once $14 million of claims have been certified as being valid, the next $86 million the Fund is liable for, unless someone else pays it.

Mr. TAUZIN. Well, that is the point. I mean, if Exxon has assumed responsibility, and if they live up to what I heard today was an awfully strong commitment to go in and settle without a lot of court challenges—as much of the provable damages as they could possibly settle—will the TAPS Fund be used at all?

Mr. O'CONNELL. If someone else picks up those claims and damages, the TAPS fund only pays if they have a claim against them, and if they do not have a claim against them, they do not pay.

Mr. TAUZIN. Who can claim against the TAPS fund?

Mr. O'CONNELL. Anybody that is damaged as a result of an oil spill of TAPS oil.

Mr. TAUZIN. So that if someone is unhappy with the way they are being treated by Exxon—if they think that they are not getting their claims adjusted properly—they have the additional right of appealing to the TAPS fund for settlement of their claims?

Mr. O'CONNELL. Once the $14 million level has been met, that is correct.

Mr. TAUZIN. I am sorry. I did not follow that. Why does not a party have a right to claim within that $14 million cap, if in fact there is no-fault liability there?

Mr. O'CONNELL. Because the Fund is not responsible, strictly liable for the first $14 million worth of damage. The owner and operator of the vessel is strictly liable, without regard to——

Mr. TAUZIN. So that a citizen, a fisherman, a group who is injured by this incident, will have to wait until Exxon pays out $15 million of damage claims before they can appeal to your fund for help?

Mr. O'CONNELL. Well, they do not have to pay them out, but there will have to have been $14 million that we consider to be valid claims, yes. And we are coordinating with Exxon at the moment. We have our own adjusters to assess claims, that will come into Exxon, and as long as they are valid claims, why, we credit that—I mean, we attribute that to the first $14 million.

Once it becomes more than $14 million, then if nobody else picks it up, we satisfy——

Mr. TAUZIN. I guess the obvious question for people like Mr. Isleib, and others who are similarly situated, is when are they going to know that this $15 million ceiling has been reached, and that your fund is now available for them to apply for assistance?

Mr. O'CONNELL. Well, at the moment, if we get a claim we send it to Exxon.

Mr. TAUZIN. I understand that.

Mr. O'CONNELL. If it comes to $14 million, or if any claim that Exxon says "We won't pay," Exxon will send them to the fund.

Mr. TAUZIN. Well, I understand that.

Mr. O'CONNELL. And we will——

Mr. TAUZIN. But will you do anything in terms of a public announcement?

Mr. O'CONNELL. Oh, yes. We will be advertising in the local papers and we will——

Mr. TAUZIN. So at some point you will tell——

Mr. O'CONNELL. And all of the procedures are available, and——

Mr. TAUZIN. You will tell people, at some point, Exxon has paid, or been credited with $15 million worth of damage claims. From now on, if you are unhappy with your settlement procedures with Exxon, you may apply to our TAPS fund for assistance?

Mr. O'CONNELL. Yes. Under the regulations, we are required to advertise in local papers within 45 days of our being aware of the incident, and as soon as we feel that there is justification for thinking it is going to be over $14 million——

Mr. TAUZIN. Well, I do not think there is any question this thing is going to exceed that level. You and I both know it. When are you

going to in fact notify the public—fishermen and others in the community—that they have the right to make application to your fund?

Mr. O'CONNELL. Well, within the next—within several days, or a week or two, I would think. We are getting our claims people together. We now have an adjustor. We are not an operating company, and so as soon as this has happened, we have had to get an adjustor on board. We have had to get—we want to try and work out with Exxon, to make sure that we both are——

Mr. TAUZIN. Mr. O'Connell, I am not the Congressman from Alaska, but were he here——

Mr. O'CONNELL. Yes.

Mr. TAUZIN [continuing]. Were the Congressman from Washington State here—Mr. Miller—I am sure he would be extremely interested in hearing from you, that in fact you have made that public announcement, and you are now in operation, prepared to assist people in the area. For that reason, as Chairman, I would request that you communicate that information to this Committee as soon as you have in fact made a decision on that public announcement, you have reached that point—if you do not mind.

Mr. O'CONNELL. We will do so, and it will be shortly.

Mr. TAUZIN. All right. Mr. Isleib, you wanted to add something?

Mr. ISLEIB. Yes. I am not sure what my claim, if any, will entail, or when I will—I may be interested in making a claim 5 years hence, and so claims are not necessarily something that I can go with TAP and say I am due so much. I do not know.

Mr. TAUZIN. Well, let me make the point. I think perhaps in the public announcements, that Mr. O'Connell and others are going to be hopefully making that clear to people—there are statutes of limitations and there are problems of—as Mr. Rawl pointed out—of remote damages that may not be recoverable.

And it is going to be very important for those of you who do have valid claims, to assert them timely, and adequately, in order to receive compensation. So let me assure you that you may not be able to wait 5 years.

Mr. ISLEIB. I am sure that my partners will notify me if I need to be involved. They are all working on other aspects of this up there.

Some other questions—or some statements here. I was on and over the tanker within a few hours, and of course I saw nobody but a pilot boat, and then I saw the Coast Guard helicopter come in, and finally, a few hours later, the Governor's plane flew in. And as late as 14 hours after the incident there still—I saw no response of any sort, in any way, shape or form.

Mr. TAUZIN. We have gotten the same picture here today.

Mr. ISLEIB. Yeah. I have got the picture in my briefcase. I mean, I can show you one. There will be a video letter to Congress for you to view, sent by the fishermen, and by other interested parties there.

One of our questions right now is what are the capabilities, and what will be the immediate contingency plans? I mean, they talk about all this boom and stuff, and I do not think they have got it in a position, should this—heaven forbid—reoccur tomorrow, that they can handle it again.

Mr. TAUZIN. Yes. Well, that is going to be our major assignment—believe me—examining what happened, to assess whether or not the next time—God forbid—something like this happens, we are not better prepared to deal with it.

Mr. ISLEIB. As well as I heard immediately—wondering why—the fishermen were wondering why this was not burned.

Mr. TAUZIN. I asked the same question.

Mr. ISLEIB. They thought that it should have been burned, and, you know, you could—with or without the tanker, it should have been burned.

Mr. TAUZIN. Yes. I have asked the very same question earlier today.

Mr. ISLEIB. Yes. There are a couple other things——

Mr. TAUZIN. We are going to have to wrap now, and let me make a suggestion. If you have additional questions you would like our Committee to explore, we would be more than happy to receive those questions, and, believe me, we will explore them for you. We will insist on some answers.

Mr. ISLEIB. We are hoping to see you in field hearings in Prince William Sound in a couple of months.

Mr. TAUZIN. We will be there.

Mr. ISLEIB. And one of the things the fishermen—as a last parting word—that they are interested in is possibly a new fund for, let's say, something like two bits a barrel coming out of that tube, that goes to the rehabilitation, enhancement, restoration and research for Prince William—for Prudhoe Bay crude, wherever it may go, in Prince William Sound, or whether it goes westward, and so forth.

Mr. TAUZIN. Well, believe me, we have a bigger problem than even this enormous catastrophe you have experienced. We have got hazardous cargo traveling the harbors and the ports and the rivers of this Nation, from one end to the other, and unfortunately, you have been visited by this catastrophe, but it is a catastrophe that could visit almost any port, any harbor and bay of the continental U.S. and Hawaii.

As a result—believe me—we will be looking at major revisions in the manner in which we prepare for and finance not only response but long-term restoration.

Thank you very much for being with us today. I want to thank all of you who have been very patient all day with us, and we will now adjourn this hearing, but we will again make the announcement, that before this month is out, we will be holding—at this committee level—hearings on the actual oil spill liability bill, and prior to that time, we will appreciate any submissions that you would like to make for us to consider in drafting that legislation.

Thank you very much. This hearing is adjourned.

[Whereupon, at 3:58 p.m., the Subcommittee was adjourned, subject to the call of the Chair.]

[The following was submitted for the record.]

U.S. House of Representatives
Committee on
Merchant Marine and Fisheries
Room 1334, Longworth House Office Building
Washington, DC 20515-6230

BACKGROUND MEMORANDUM
April 5, 1989

TO: Members, Subcommittee on Coast Guard & Navigation
(Copy: Members, Committee on Merchant Marine and Fisheries)

FROM: Staff

SUBJECT: Oversight on the cleanup operation of the Exxon Valdez oil spill in Prince William Sound, Alaska

---

On April 6, 1989 at 9:00 A.M. in room 1334 Longworth House Office Building, the Subcommittee on Coast Guard and Navigation will conduct an oversight hearing on clean-up operations of the Exxon Valdez oil spill in Prince William Sound Alaska. Witnesses include the Honorable Samuel K. Skinner, Secretary of Transportation; Admiral Paul A. Yost, Jr., Commandant of the Coast Guard; the Honorable Steve McAlpine, Lt. Governor of Alaska; the Honorable John Devens, Mayor of the City of Valdez, Alaska; Mr. Kent Burton, National Oceanic and Atmospheric Administration; Mr. James L. Makris, Environmental Protection Agency and Co-Chairman of the National Response Team; Mr. David Olsen, U.S. Fish and Wildlife Service; Mr. L. G. Rawl, Chairman of the Board, Exxon Corporation; Mr. Quinn O'Connell, counsel representing the Trans-Alaska Pipeline Fund; and Mr. Pete Isleib, Prince William Sound Aquaculture Association.

BACKGROUND

Shortly after midnight on March 24, 1989, the 978-foot tanker Exxon Valdez ran aground on Bligh Reef in Prince William Sound Alaska, spilling more than 240,000 barrels of crude oil, the largest spill in U.S. history. (See appendix #1 for chronology of events from Thursday, March 23 to Monday, March 27, 1989; map of Prince William Sound; and diagram of Exxon Valdez.) The grounding occurred after the vessel left the normal shipping lanes reportedly to avoid ice floes. The master of the vessel was not on the bridge, although applicable law and regulations require a federal pilot to be in control of a vessel in those waters. The vessel was under the control of the third mate who is

not certified as a pilot. The grounding occurred on the outer fringes of the Coast Guard's vessel traffic system (VTS). Alcohol is considered to be an important factor in the incident.

Exxon Shipping Company has assumed all responsibility for the cleanup. Since the incident, the master of the vessel has been fired by Exxon, and criminal charges have been filed against him.

The spill has injured or killed numerous birds and marine mammals, and has threatened local fish hatcheries and coastal areas. It has disrupted local fishing seasons and threatened the local fishing industry. Tanker traffic has been slowed resulting in a shortage of west coast oil. The price of oil has increased and higher fuel costs are already reaching the market, particularly, on the west coast.

There has been some criticism of the Coast Guard for not "federalizing" the spill, i.e., assuming the responsibility for cleanup. Those critics feel that reaction to the spill was too slow and that the alleged delay caused greater damage.

PROVISIONS FOR CLEAN-UP

There are State and Federal laws that mandate cleanup plans. The State of Alaska requires an Alyeska Pipeline Oil Contingency Plan for spills at Prince William Sound, which plan must be capable of cleaning up a 200,000 barrel spill within five hours and to recover fifteen percent of the oil.

ALYESKA PIPELINE SERVICE COMPANY OIL SPILL CONTINGENCY PLAN

Alaska state law requires that "a person may not cause or permit the transfer of oil to or from a tank vessel ... unless an oil discharge contingency plan for the tank vessel or oil barge has been approved by the department." In addition, Alaska state law allows the Alaska Department of Environmental Conservation to "attach reasonable terms and conditions to its approval of an oil discharge contingency plan which it determines are necessary to insure that the applicant for an oil discharge contingency plan has access to sufficient resources to protect environmentally sensitive areas and to contain, clean up, and mitigate potential oil discharges from the facility or vessel within the shortest feasible time." Therefore, the Alyeska Oil Spill Contingency Plan was not required, or approved, by the Coast Guard. However, the Coast Guard's Local Contingency Plan for Prince William Sound relies heavily on the Alyeska Plan for information on "environmentally sensitive areas, available equipment listing and the latest in pollution cleanup techniques and procedures."

The Alyeska Contingency Plan details the response actions that would be undertaken in two oil spill scenarios: a 4,000 barrel spill in the Valdez Narrows; and a 200,000 barrel spill in Prince William Sound.

Under the Prince William Sound scenario, the following response actions would be undertaken:

- The closest empty tanker would be directed to the spill to off-load the remainder of the disabled tanker's cargo (arrival time 12 hours).
- Move containment booms (10,500 feet of containment boom and 1,000 feet of sorbent boom), skimmer equipment (capable of collecting 1,392 barrels of oil per hour, pumps, and personnel to spill site within 5 hours.
- Request assistance from Coast Guard Pacific Strike Team and private oil spill contractors in Alaska and the west coast of the United States.
- Request permission from OSC to apply dispersants to the oil slick (2,475 gallons available in Valdez, approximately 18,000 gallons available in Alaska).
- Request permission for the OSC to open-burn slick in the ocean.

Alyeska estimates that under this plan 50% of the oil would be recovered (either directly from the water or after being washed off of rocks), 15% would evaporate, 15% would be recovered from the shore, 15% would naturally disperse, and 5% would remain in the environment.

In its closing discussion of Prince William Sound scenario, Alyeska noted that "in reviewing the aspects of this size spill it becomes very apparent how important it is to have dispersants approved so that they can be used very effectively to prevent the continuing input of oil into the small bays and shorelines in Prince William Sound." However, the Coast Guard's RCP for Alaska states that "dispersants, as a tool to mitigate the effects of oil spills in the environment, will be considered as a possible response option only when mechanical containment and recovery response are not workable." Moreover, RCP guidelines allow dispersant use only when the environmental impact of the oil (without dispersant) will be greater than the environmental impact of the dispersant.

The Alaska RCP has classified Alaska's coastal waters into three dispersant use zones based on physical parameters (e.g., currents), biological parameters (e.g., proximity to wildlife concentrations), and nearshore human activities. In zone one, dispersant use is allowed without prior approval from the EPA or the State of Alaska. In zone two, dispersants may be used after obtaining approval from the EPA and the State of Alaska. Dispersant use in zone three is not recommended, but may be approved on a case-by-case basis. The original spill site, Bligh Reef, is in zone three and the center of Prince William Sound is

in zone one. While dispersants are alloved in zone one, successful efficacy tests are required before its use is authorized.

SECTION 311 OF THE CLEAN WATER ACT (33 U.S.C. 1321)

Section 311 (c)(2) of the Clean Water Act directs the President to publish a Nation Contingency Plan (NCP) to "provide for efficient, coordinated, and efficient action to minimize damage from oil and hazardous substance discharges, including containment, dispersal, and removal of oil and hazardous substances." The NCP is codified in title 40 of the Code of Federal Regulations, part 300. The NCP establishes a National Response Team, a planning and coordinating body made up of representatives from fourteen Federal agencies with environmental responsibilities. The National Response Team, while it does not directly respond to oil or hazardous chemical spills, provides guidance prior to a spill and assistance during a spill.

The Nation Contingency Plan established a second level of organization through the establishment of Regional Response Teams (RRTs). There are 13 RRTs, one for each of ten Federal districts and one each for Alaska, the Caribbean, and the Pacific Basin. The RRTs are responsible for the development of a Regional Contingency Plan (RCP) but they do not directly respond to a spill. Membership of the RRTs is the same as the National Response Team with the addition of representatives from each of the states in a region.

The final level of organization created by the Nation Contingency Plan is at the local level through a Local Contingency Plan (LCP). A LCP is an "immediate response" document that identifies: 1) environmentally sensitive areas and resources that may be at risk in the event of a spill, 2) contains a response equipment guide, 3) response procedures, and 4) identifies local response contractors. The LCP also defines the Federal On-Scene-Coordinator (OSC) -- the Coast Guard provides OSCs for the coastal zone and the EPA provides OSCs for the inland zone. The OSC is responsible for ensuring proper pollution response (private or government), and coordinates Federal containment, removal, and disposal efforts.

In the event of an oil or hazardous chemical spill, Federal policy dictates that the OSC is to determine if the actions taken by the party responsible for the spill are "appropriate and satisfactory to terminate, contain, and remove the discharge or release." If the responsible party is taking appropriate action, the OSC's role is to "observe and monitor the response and provide advice, counsel, and logistical support as may be necessary." If the response actions are inadequate or the responsible party in unknown, the spill response will be placed under Federal control. When a spill response is placed under

Federal control, the OSC is directly responsible for obtaining the cleanup equipment, either through private contractors or Coast Guard Strike Teams (two specially trained and equipped teams which can respond immediately to large-scale oil or hazardous chemical spills).

LIABILITY

TRANS-ALASKA PIPELINE AUTHORIZATION ACT

The Trans-Alaska Pipeline Authorization Act (43 U.S.C. 1651) established liability for damages from discharges of oil from vessels loaded at Trans-Alaska Pipeline Terminal Facilities. The law provides that the owner and operator of the vessel as well as the Trans-Alaska Pipeline Liability Fund (TAPF) are strictly liable without regard to fault for all damages.

"Damages" is defined as removal cost, injury to, or destruction of real or personal property, loss of use of real or personal property, injury to or destruction of natural resources, loss of use of natural resources, loss of profits or impairment of earning capacity due to injury or destruction of real or personal property or natural resources, including loss of subsistence hunting, fishing, and gathering opportunities, and a loss of tax revenue for a period of one year due to injury to real or personal property. Suit can be brought by any person or entity, public or private (including residents of Canada) who has sustained damages. Liability is restricted to only vessels transporting oil from TAP's terminal facilities to a port under the jurisdiction of the United States. Strict liability is not imposed if the damages were caused by war, or by the negligence of the damaged party.

The money for TAPF is raised from a fee of $.05 per barrel and is collected from the owner of the oil when it is loaded onto the vessel. The present fund balance is approximately $248,000,000.

Strict liability of the vessel owner and operator is limited to the first $14 million in damage claims, and the TAPF is responsible for up to $86 million of additional claims for a combined liability of up to $100 million. For damages caused by unseaworthiness of the vessel or by negligence, the owner and operator remains liable for claims over $14 million. If total damage claims exceed $100 million, all claims are reduced proportionately. Any unpaid portion of a claim may be asserted and adjudicated under other applicable Federal or State Law.

CLEAN WATER ACT

Section 311 of the Clean Water Act also provides that the vessel owner or operator is liable to the U.S. government for the actual costs incurred by the government for the removal of the oil. For oceangoing vessels that liability is limited to $150 per gross ton unless the U.S. can show that the discharge was the result of the "willful negligence or willful misconduct within the privity and knowledge of the owner" at which point the owner or operator is liable for the full amount of the cost. (For a vessel the size of the Exxon Valdez, the estimated liability under the "per gross ton" limitation is in the $14 million range.) Cost includes expenses incurred by the Federal or State government in the restoration or replacement of natural resources damaged or destroyed as a result of the discharge.

The Act establishes what is called a 311(k) fund, which is a revolving fund within the Treasury to carry out the provisions of Section 311. The fund is maintained by federal appropriations at a level of $35 million and administered by the Coast Guard. Although the fund is supposed to recover expenses from the responsible party, only 1/2 of the $143 million spent since 1971 has been recovered. The fund is estimated to have only $2 million in it at this time.

LEGISLATION

H.R. 1465, OIL POLLUTION LIABILITY AND COMPENSATION ACT

The Merchant Marine and Fisheries Committee has taken the lead in attempting to enact oil spill reform legislation. H.R. 1465 was introduced by Full Committee Walter B. Jones, Subcommittee Chairman Billy Tauzin, and Ranking Minority Member Bob Davis, and approximately forty other Members of the House on March 16, 1989.

In fact, the Committee has reported similar legislation numerous times since the 94th Congress, but it has never been signed into law. This bill would establish comprehensive oil pollution liability and compensation fund to replace Trans-Alaska Pipeline Authorization Act provisions as well as provisions of the three other federal funds. It would cover oil spills from vessels and facilities both offshore and onshore. The legislation would impose strict, joint, and several liability on those responsible for oil spills and establish liability for a broad class of damages including cleanup cost, damages to natural resources, and third party damages. $500 million would be authorized to cover claims against the fund out of a single incident with revenues coming from the industry and not the general taxpayer as is currently the case under the Clean Water Act. The bill would also implement two international protocols establishing a similar liability and compensation regime globally.

RELATED ISSUES

VALDEZ VESSEL TRAFFIC SYSTEM (VTS)

Section 402 of the Trans-Alaska Pipeline Act (P.L. 93-153) directed the Coast Guard to establish a mandatory VTS for Prince William Sound and Valdez, Alaska (mandatory means vessels are required to participate). A VTS is not operated in the same manner as an airport air traffic control system. Vessel movements are tracked by radar, but unlike an air traffic control system, a Coast Guard operator has no authority to order a vessel to take an action. Vessels required to participate in a VTS include: 1) all vessels 300 gross tons or more; 2) passenger vessels 100 gross tons or more; 3) towing vessels 26 feet or more in length; and 4) dredges and floating plants affecting navigation. Vessels participate in a VTS by calling on the radio prior to arrival in the system, at certain points in the system, when the vessel changes speed, and when a course change will take the vessel out of the established traffic pattern.

The Valdez VTS began operations in 1977 with two radar sites. There are currently seven people assigned to the Valdez VTS (3 civilians and 4 enlisted Coast Guardsmen). Prior to 1988 there were 12 people assigned to the VTS. However, because of its 1988 appropriations shortfall, the Coast Guard cut 4 officers and one enlisted man from the Valdez VTS. The Coast Guard believed that the low volume of traffic at Valdez (9 vessel movements per day), compared to VTS's in San Francisco (216 vessel movements), Houston (283 vessel movements), or Seattle (613 vessel movements), allowed this reduction in supervisors.

Several press reports regarding the VTS need clarification. First, the Exxon Valdez did not ask for and receive permission from the VTS to make the course change that caused it to run aground on the reef. The Exxon Valdez merely called to report that it was changing course -- as the system requires. Second, the VTS had intermittent radar contact with the Exxon Valdez after it passed Rocky Point. Additionally, Bligh Reef was only "marginally visible" on the VTS' radar at the time of the accident.

PILOTAGE

A federally licensed pilot is required to be on the vessel from the time it leaves the Valdez Oil Terminal until in reaches Hinchinbrook, outside of Prince William Sound. A State licensed pilot is on board from Valdez until it reaches Rocky Point. Then it is only necessary to have a federally licensed pilot to transit the waters from Rocky Point to Hinchinbrook. In this instance, the Master of the vessel was the only one on board who had a federal pilot certification. Therefore, the master was required to be on the bridge during that portion of the voyage.

The Coast Guard Authorization Act of 1984 enacted section 8502(g) of title 46 which requires the Secretary of Transportation (Coast Guard) to designate by regulation the areas of the approaches to and waters of the Prince William Sound on which a federally licensed pilot is not required.

On June 6, 1988, the Department of Transportation (Coast Guard) published in the Federal Register a supplemental notice of proposed rulemaking entitled "Licensing of Pilots; Manning of Vessels-Pilots" (page 20654). In the proposed rules the Coast Guard proposed the following exemptions to the pilotage requirements:

(1) Proceeding directly to or from the established Valdez/Whittier pilot station at Rocky Point;

(2) Proceeding directly to or from the established Cordova pilot station at Sheep Point; and

(3) Proceeding directly to or from a designated anchorage.

If this proposed regulation had become final, the master with the endorsed pilots license would not have been required to have been on the bridge when the Exxon Valdez had the accident. In a recent staff briefing the Coast Guard advised that no comments had been received on the proposed rules; however, no further action was taken on the proposal.

LICENSING

The Secretary is authorized under 46 U.S.C. 7101(c) to issue licenses for masters based on the individual's age, character, habits of life, experience, professional qualifications, and physical fitness. A license must be reneved every 5 years.

Background checks for convictions are made when licenses are initially issued. The individual is fingerprinted and a check is made with the Federal Bureau of Investigation's Criminal Records Center. However, when a license is reneved, the Coast Guard asks the individual to list any conviction other than a minor traffic violation, but accepts the individual's self certification without conducting another background check.

LICENSE SUSPENSION AND REVOCATION

Section 7703 of title 46 provides the general basis for suspending or revoking a license if, "when acting under authority of that license," the holder has violated a law or regulation prescribed to promote marine safety or to protect navigable waters, or has committed an act of incompetence, misconduct, or negligence. In this particular case, the master driving his car

while intoxicated and having his drivers license revoked may not be the basis for suspending or revoking his masters license. While his DWI actions may have been one of misconduct or negligence, it was not done "when acting under authority of that license".

However, when an individual has been convicted within 10 years of violating a dangerous drug law, then the license must be revoked. It is not necessary for the drugs to have been used "when acting under authority of that license".

ALCOHOL

In the Coast Guard Authorization Act of 1984 Congress enacted section 2302(c) of title 46 requiring the Secretary to prescribe regulations concerning the minimum blood-alcohol level that constitutes "intoxicated" for purposes of operating a vessel. The Secretary prescribed a standard of .04% blood alcohol as the minimum that constitutes intoxicated on commercial vessels and .1% on recreational vessels. This compares with .1%, which is the level most states use for driving an automobile. When the master was tested 10 hours after the accident, his level was .061%.

In 1987, Congress passed the Criminal Fine Improvements Act of 1987, which changed the criminal penalty for a violation from $5,000, one year in prison, or both, to a Class A misdemeanor with a penalty of not more than $100,000, one year in prison, or both.

Coast Guard regulations (33 CFR 95.045) provide a crewmember shall not perform any scheduled duties within four hours of consuming alcohol, be intoxicated at any time, or consume any intoxicants while on board his vessel. A marine employer must exercise due diligence to assure compliance with this, and if he has reason to believe an individual is intoxicated, he shall not permit the individual to perform any duties. (33 CFR 95.050)

Coast Guard Regulations (33 CFR 95.035) provide that when reasonable cause exists only a law enforcement officer or marine employer may direct an individual to undergo a chemical test. Reasonable cause exists when the individual was directly involved in a marine casualty, the individual is suspected of having an alcohol concentration of .04 percent by weight or more, and the individual is operating a vessel and it is apparent by observation that the alcohol is effecting the persons manner, disposition, speech, muscular movement, general appearance or behavior.

If an individual refuses to submit to a chemical test that refusal will be admissible evidence at any administrative hearing. If the person refuses to submit to a test ordered by a law enforcement official, he will be presumed intoxicated. (33 CFR 95.040)

Following a marine casualty, a marine employer is required to determine weather there is evidence of alcohol or drug use by individuals directly involved in the accident. He must submit documents identifying those persons and specifying the basis for that conclusion (i.e., observation, chemical test, etc.), make an entry in the ship's log, if the ship is required to maintain a log. The individual must be informed of this entry and the entry must be witnessed by a second person. He must also note in the ship's log and other documents if any person refused to submit to a chemical test.

Alcohol abuse is grounds for denial or suspension of seamen papers (i.e. license, certificate or document) 46 U.S.C 7503, 7704. If a mariner is suspected of alcohol abuse, the Coast Guard will conduct a preliminary investigation. If based on that investigation and it is determined further action is appropriate, there will be a hearing to determine whether the charge is justified and whether to revoke the papers. At that hearing, the mariner may be represented by counsel.

If the Coast Guard determines the person is alcohol dependent, he will not be issued new papers for a three-year period. The three-year waiting period may be waived if the person has successfully completed a bona fide alcohol abuse rehabilitation program and is actively participating in a bona fide alcohol abuse monitoring program. Even if the person waits three years, he must still provide evidence of rehabilitation.

[The Master of the Exxon Valdez is subject to state charges for operating a vessel while intoxicated. He surrendered to New York State authorities on April 5 and, presumably, will be held for extradition to Alaska.]

On November 21, 1988, the Coast Guard promulgated new rules dealing with alcohol and drug abuse. (53 Federal Register 47064). Earlier proposed rules were the subject of a Merchant Marine Subcommittee oversight hearing on September 22, 1988. These rules provide that, following a serious marine incident, tests must also be performed to determine if any crew member directly involved in the incident was under the influence of alcohol or drugs. Employers generally must implement these programs by December 21, 1989. Smaller employers (less than 11 employees) will have until December 21, 1990, to implement this requirement.

DRUG TESTING OF MERCHANT SEAMEN

In an effort to assure a drug free workplace and to reduce drug related accidents, in 1989 the Department of Transportation promulgated a series of regulations requiring drug testing for employees in various transportation fields, including aviation, trucking, and the maritime industry.

The proposed rules for the maritime industry were issued by the Coast Guard on July 8, 1988 (53 Federal Register 25926), and final rules were issued on November 21, 1988 (53 Federal Register 47064). The proposed rules were the subject of a Merchant Marine Subcommittee oversight hearing on September 22, 1988.

The Coast Guard regulations require drug tests: (1) prior to employment; (2) on a random basis; (3) on a periodic basis, usually incident to Coast Guard license reneval or routine physical examination; (4) when an employer has reasonable cause to suspect illegal drug use; and (5) following a serious accident.

Following a serious accident, tests must also be performed to determine if any member of the crew was under the influence of alcohol.

Employers are generally required to implement these programs by December 21, 1989. However, large employers (more than 50 employees) must have pre-employment testing in place by June 21, 1989, and smaller employers (less than 11 employees) will have until December 21, 1990, to implement programs. Random testing programs become mandatory on December 21, 1990.

The regulations were met with strong opposition from both management and labor. Labor objected to the regulations on constitutional grounds. Management objected to the cost of imposing these programs. Management further argued that the industry was already acting to curb drug use and the regulations amounted to an unnecessary government intrusion in the work place.

A number of maritime labor unions maintain drug and alcohol treatment programs for their members who may develop dependencies. The licensed officers on the Exxon Valdez were not members of any union.

This program has been challenged in court by the Seafarers International Union (SIU) and the Transportation Institute (TI). As of early 1989, that suit had not come to trial and, therefore, the legality of these rules had not been determined.

On March 21, 1989, the Supreme Court upheld a set of drug testing regulations governing railroad workers. It is unclear if the courts will find that the justification for upholding the railroad rules extend to the Coast Guard regulations.

VESSEL CONSTRUCTION: DOUBLE BOTTOMS/DOUBLE HULLS

There is no legal requirement under U.S. law or international convention that oil tankers operating in U.S. waters be constructed with double bottoms or double hulls.

"Double bottom" is a ship construction term referring to two separate but continuous and watertight plating structures along some length and width of a ship's bottom. "Double hull" is a method of ship construction incorporating both double bottoms and double sides.

Since the early 1970's when the Trans-Alaska Pipeline trade was envisioned, proposals to specifically require double bottoms/double hulls on oil tankers have been considered by the Congress and the Executive Branch. There are and have been conflicting views on the pollution prevention effectiveness and safety of this requirement.

The Port and Tanker Safety Act of 1978 (P.L. 95-474) provides authority to the U.S. Coast Guard to prescribe regulations, which could include double bottoms/double hulls for oil tankers. This authority specifically authorizes prescribing different regulations for vessels engaged in the domestic trade, and that exceed standards set internationally.

SEGREGATED BALLAST TANKS

Pursuant to the authority of the Port and Tanker Safety Act of 1978 (P.L.95-474), the U.S. Coast Guard adopted rules in 1979, requiring oil tankers operating in, or entering the navigable waters of, the United States and having a carrying capacity of 20,000 DWT or more, to have protectively-located segregated ballast tanks.

Protectively located segregated ballast tanks are separate tanks used for ballast water only. Such tanks never carry oil and thus the "operational discharge" of oily ballast water is prevented. These tanks are fitted at locations along the sides and bottom of the ship to provide protection against oil outflows resulting from collisions, rammings, and groundings.

The Exxon Valdez was built with protectively located separate ballast tanks which were intended to protect 30% of the cargo area of the ship.

APPENDIX 1

CHRONOLOGY OF EVENTS

EXXON VALDEZ Grounding

Thursday, March 23 - Monday, March 27, 1989

THURSDAY, MARCH 23, 1989

915pm - Tanker EXXON VALDEZ (EV) departs Valdez, Alaska harbor with local harbor pilot. Vsl is 987 feet long, loaded with 53,094,510 gallons (1,264,155 barrels @ 42 gals/barrel) of North Slope crude oil, with a design draft of 63 feet (actual draft unknown at this time), and bound for refineries at Long Beach and Benicia, California. The vsl had a total capacity for 1.6M bbls but was "light" loaded for the ports in California.

1053pm - EV clears Valdez Narrows, changes course to 219 degrees, standing into the Valdez Arm and bound for Prince William Sound and the Gulf of Alaska.

1124pm - Local harbor pilot disembarks EV as vsl approaches outbound lane of Prince William Sound Traffic Separation Lanes.

1139pm - After progressing down outbound lane, EV informs VTS Valdez of course change to port to 185 degrees (across Traffic Separation Zone and inbound traffic lane) to avoid ice floes (emanating from the Columbia Glacier 10 nautical miles to the north west), approaching from tanker's starboard.

1155pm - EV continues on course 185 degrees and is now inside (to the east) the inbound traffic lane; press accounts indicate that EV had been lost from standard CG VTS Valdez radar coverage at this time.

FRIDAY, MARCH 24, 1989

1204am - EV hard aground at this time on BLIGH REEF after a number of bottom strikes; grounding site has 36 feet of water at mean lower low water according to NOAA nautical chart #16708, high tide occurred at 206am rising water level to approx. 49 feet, location is approximately 2500-3000 yards northeast of an on-station and properly operating lighted buoy marking the shallow water area around the reef; weather at the time = winds north at 10 kts, slight drizzle/rain/snow mix, visibility 10 miles, 33 degrees F.

1228am - EV radios VTS Valdez of incident; informs CG that vsl is leaking oil.

1230am - ALYESKA PIPELINE SERVICE COMPANY launches observation tug to scene without containment equipment; Port of Valdez closed to all traffic.

100am - Pilot boat departs Valdez transporting CG and Alaska Dept. of Environmental Conservation (ADEC) pers to EV.

206am - High tide (12.8 ft + 36 ft m.l.l.w.) fails to refloat EV.

227am - Merchant Vessel SHERIKOFF reports oil slick one half mile south of EV.

323am - CG pers aboard EV, report loss of 138,000 barrels of crude (5,796,000 gallons).

414am - Tanker EXXON BATON ROUGE contacted, enroute scene to initiate lightering (oil offloading/transfer) operations, ETA 1100am.

727am - ALYESKA security helo observes slick to 1000 feet wide and 4-5 miles long, extending to the south.

900am - Master and Third Mate of EV tested for alcohol and/or drug use by CG corpsman.

950am - ALYESKA boats underway with containment/skimming equipment (ETA 1 pm).

1115am - Rate of discharge from EV sloved.

1200pm - Regional Response Team (RRT) teleconference commenced; use of dispersants and site burning discussed.

200pm - Pollution Fund opened with $25,000 for staging of CG strike team equipment.

230pm - CG reports first ALYESKA equipment arrives EV.

310pm - CG on scene commander (OSC) grants permission for dispersant tests on leading edge of sheen.

445pm - Governor of Alaska (GOV) underway on CG boat enroute EV.

500pm - GOV arrives EV.

600pm - Dispersant test conducted with poor results.

707pm - GOV departs EV.

810pm - EXXON BATON ROUGE (EBR) along side EV port to port.

1015pm - First hose connected between EV and EBR.

SATURDAY, MARCH 25, 1989

736am - Transfer of crude oil from EV to EBR begins.

750am - Commercial divers complete underwater hull survey and report massive damage; based on this report engineer who designed EV advises that vsl is not floatable.

800am - Lightering between EV and EBR continues at a rate of 10-12,000 bbls/hr with seawater being pumped into EV ballast tanks to maintain stability.

830am - ALYESKA has slowed pipeline flow to 768K bbls/day; has 7 days of storage capacity remaining.

945am - On scene RRT meets at MSO Valdez; EXXON announces it has assumed financial responsibility and oil spill cleanup coordination.

1000am - CG Pacific Strike Team on scene, CG helo delivering equipment to deck of EV.

1100am - EV surrounded by containment boom.

800pm - Dispersant test conducted by C-130 aircraft, not successful.

815pm - EXXON completed first mapping of area to define location of oil and beach areas impacted.

845pm - Site burn conducted near Goose Island; estimated 15,000 gallons consumed by burn, 100 sq. ft. area of tar-like substance remained.

SUNDAY, MARCH 26, 1989

900am - EXXON has 100 people on cleanup operations with 200 on stand by.

1115am - CG, ADEC, & EXXON pers confer on startup of efforts to protect herring roe sensitive areas at north end of BLIGH ISLAND.

- In afternoon, winds begin to increase and weather deteriorates.

300pm - NTSB members onboard EV.

400pm - Dispersant test by C-130 aircraft considered a success.

530pm - Mtg of CG, ADEC, EXXON, and AK Attorney General's ofc.

630pm - GOV declares state of emergency.

700pm - Commercial divers commence survey of EV's underside with video equipment.

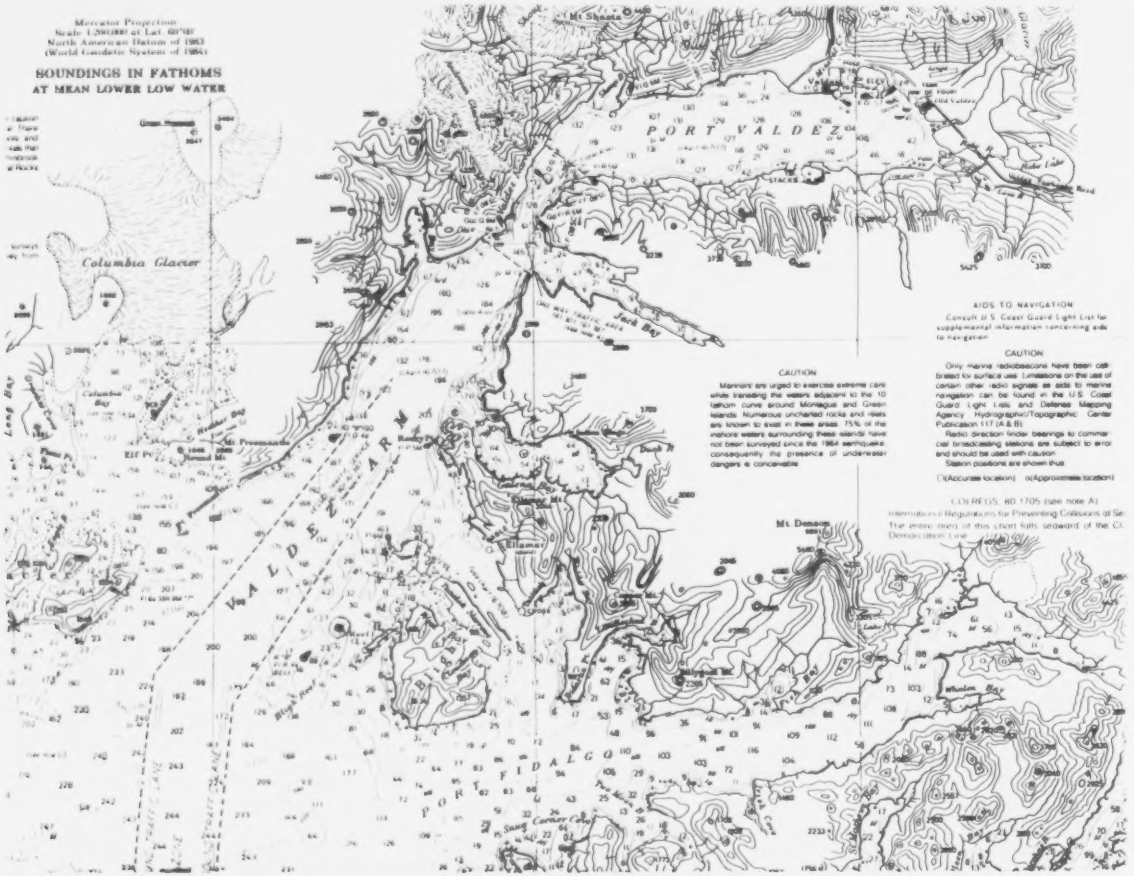
810pm - CG 17th DIST CDR and OSC participate in vigorous news conference.

900pm - Planned site burn cancelled due to high winds.

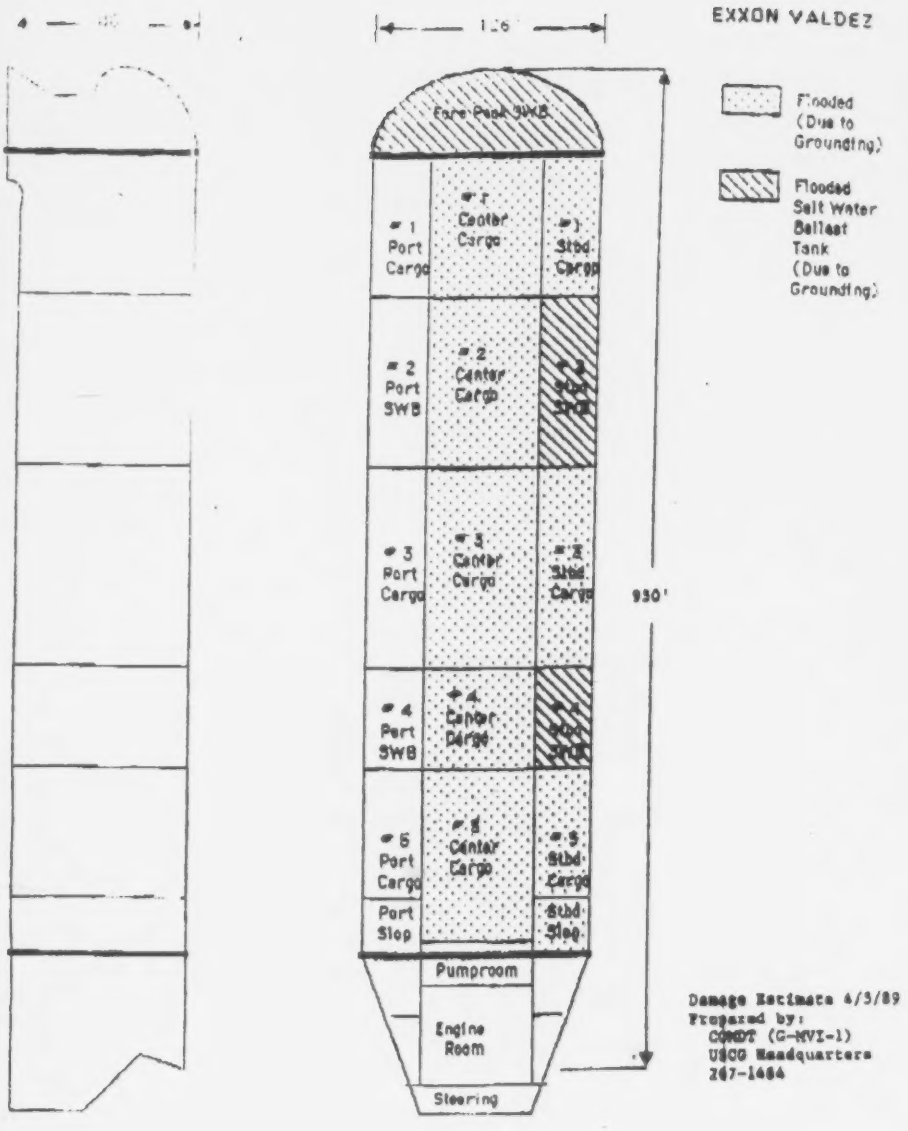
MONDAY, MARCH 27, 1989

- Overnight winds in excess of 70 mph have driven the oil slick 35-40 miles into southwest sections of Prince William Sound.

- Spill appears to be beyond control.....


Mercator Projection
Scale 1:200,000 at Lat. 60°10'
North American Datum of 1983
(World Geodetic System of 1984)
SOUNDINGS IN FATHOMS
AT MEAN LOWER LOW WATER
Mt. Shasta
PORT VALDEZ
Columbia Glacer
Valdez Arm
Port Fidalgo
Mt. Denson
Ellamar
Whalen Bay
Jack Bay
Long Bay
Columbia Bay
Elf Pt.
Mt. Promontory
Duck Pt.
Stacks
AIDS TO NAVIGATION
Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation
CAUTION
Mariners are urged to exercise extreme care while transiting the waters adjacent to the 10 fathom curve around Montague and Green Islands. Numerous uncharted rocks and reefs are known to exist in these areas. 75% of the inshore waters surrounding these islands have not been surveyed since the 1964 earthquake, consequently the presence of underwater dangers is conceivable.
CAUTION
Only marine radiobeacons have been calibrated for surface use. Limitations on the use of certain other radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and Defense Mapping Agency Hydrographic/Topographic Center Publication 117 (A & B).
Radio direction finder bearings to commercial broadcasting stations are subject to error and should be used with caution.
Station positions are shown thus
⊙(Accurate location) ⊙(Approximate location)
COLREGS: 80 1705 (see note A)
International Regulations for Preventing Collisions at Sea
The entire area of this chart lies seaward of the Co
Demarcation Line.

04/05/89 08:55


EXXON VALDEZ
Flooded (Due to Grounding)
Flooded Salt Water Ballast Tank (Due to Grounding)
Fore Peak SWB
#1 Port Cargo
#1 Center Cargo
#1 Stbd Cargo
#2 Port SWB
#2 Center Cargo
#2 Stbd SWB
#3 Port Cargo
#3 Center Cargo
#3 Stbd Cargo
#4 Port SWB
#4 Center Cargo
#4 Stbd SWB
#5 Port Cargo
#5 Center Cargo
#5 Stbd Cargo
Port Slop
Stbd Slop
Pumproom
Engine Room
Steering
930'
Damage Estimate 4/5/89
Prepared by:
CGMOT (G-MVI-1)
USCG Headquarters
267-1464

FACTS ON ALASKA OIL SPILL

Prepared by Hon. Don Young

-- Oil spillage is serious: 248,000 barrels, 10.3 million gallons

-- Will cause temporary loss of fisheries, wildlife habitat

  -- damage primarily on West Islands in Prince William Sound. Most productive habitat is on East side of sound.

TYPES OF SENSITIVE AREA'S EFFECTED BY SPILL

-- Pacific herring	Heavy Effects: around Naked Island, Bligh Island (early), Green Island, Seal Island. Some Effects: North and West side Montague Island.
-- various marine birds	Heavy Effects: around Naked Island, Knight Island, Green Island. Some Effects: Elrington Island, Montague Island North and West sides, Bainbridge Island

--	Sea Otters	Heavy Effects: Seal Island, Green Island, West side of Knight Island. Some Effects: Bligh Island, North West side Montague
--	Sea Lions	Heavy Effects: North Knight Island, South of Green Island. Some Effects: Elrington Island
--	Harbor Seal	Heavy Effects: Knight Island. Some Effects: Bainbridge Island and Montague Islands
--	Salmon	Possible Damage: Evans Island Hatchery (triple boomed since early on but still danger)

Damage to these species has been severe in the areas effected by the spill and I don't want to minimize them but NOAA and fish and wildlife biologist tell me that:

> "All species which have been effected by the spill have sufficient habitat elsewhere in areas of the Prince William Sound that has not been effected by the spill that will form the basis for a full recovery."

-- Worst kind of negligence -- Federally licensed pilot was drunk, in cabin

Clean-up is now working:

- 450 Federal personnel (primarily Coast Guard)
- 3 Coast Guard cutters
- 15 skimmers
- 33 contract vessels

800 Civilians
- 300 on beaches
- 250 on vessels
- 250 logistics monitoring and control

-- Since 1979, there have been 8,736 different shipments through Valdez

  -- 245 billion gallons of crude oil has passed through pipeline

  -- Alaska supplies 2 million barrels per day

  -- Alaska supplies: 25% of Nation's supply
  40% of crude oil on West Coast
  90% in some areas

  -- If this supply is cut off, supply will come from IRAQ and IRAN on foreign ships -- Foreign tanker spills have been historically much greater than U.S. tanker spills

SOLUTIONS

-- We need to stick together to make sure Exxon pays -- They appear to be totally committed to that now

-- We need to look first at what caused the accident -- then we will need to move on oil spill reforms. This is not the time for hysteria.

-- I caution all of you to keep in mind that this is a very important source of U.S. oil. The problem occurred at the end of the pipeline -- not the beginning -- is not related to ANWR.

-- Let us fix the problem of oil delivery (better equipment, better restrictions; more training; drug and alcohol testing) but not cut off U.S. supply.

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
STATEMENT OF ADMIRAL PAUL A. YOST, JR.
ON THE FY 1990 COAST GUARD AUTHORIZATION
HOUSE OF REPRESENTATIVES SUBCOMMITTEE ON
COAST GUARD AND NAVIGATION
COMMITTEE ON MERCHANT MARINE AND FISHERIES
6 APRIL 1989

THANK YOU VERY MUCH AND GOOD MORNING, MR. CHAIRMAN.

ACCOMPANYING ME TODAY ARE THE VICE COMMANDANT, VICE ADMIRAL CLYDE LUSK; THE CHIEF OF MY PROGRAMS DIVISION, CAPTAIN KEN THOMPSON; AND, THE CHIEF OF MY BUDGET DIVISION, CAPTAIN DAVE SPADE.

I AM PLEASED TO MEET WITH YOU AND THE OTHER DISTINGUISHED MEMBERS OF THIS SUBCOMMITTEE TO DISCUSS THE GROUNDING OF THE TANKER EXXON VALDEZ AND THE RESULTING OIL SPILL IN PRINCE WILLIAM SOUND.

MR. CHAIRMAN, LAST WEEK, AFTER MY TRIP WITH YOU TO THE GULF COAST WAS CUT SHORT BECAUSE OF THIS DISASTROUS OIL SPILL, SECRETARY SKINNER, EPA DIRECTOR REILLY, AND I SPENT TWO DAYS IN ALASKA GETTING A FIRST-HAND LOOK AT THE OIL SPILL AREA AND CLEAN-UP ACTIVITY. JUST BEFORE WE LEFT FOR ALASKA, WE MET WITH THE PRESIDENT TO DISCUSS THIS TRAGIC SITUATION AND RECEIVE HIS INSTRUCTIONS. LET ME ASSURE YOU THAT THE PRESIDENT IS DEEPLY CONCERNED ABOUT ENVIRONMENTAL ISSUES AND VERY INTERESTED IN THE COAST GUARD'S MARINE SAFETY AND ENVIRONMENTAL PROTECTION MISSIONS. WHEN WE RETURNED, WE REPORTED BACK TO THE PRESIDENT ON OUR FINDINGS, PARTICULARLY EXXON'S EFFORTS TO PREVENT FURTHER POLLUTION, AND TO CONTAIN AND CLEAN-UP WHAT HAS ALREADY OCCURRED.

WE ARE GETTING EXCELLENT COOPERATION FROM ALL OF THE AGENCIES AND PARTIES INVOLVED IN TRYING TO MINIMIZE THE POTENTIALLY DEVASTATING EFFECTS OF THE LARGEST OIL SPILL IN THIS NATION'S HISTORY. FOR THE MOMENT, I BELIEVE THAT EXXON, AS A PARTY WITH PRIMARY RESPONSIBILITY FOR CLEAN-UP, IS MAKING EVERY EFFORT TO FULFILL ITS RESPONSIBILITIES IN THAT AREA. I AM ALSO SATISFIED THAT THIS COUNTRY'S NATIONAL RESPONSE ORGANIZATION IS WORKING WELL CONSIDERING THE SEVERITY OF THE SPILL AND THE REMOTENESS OF THE AREA. THERE IS ALSO SIGNIFICANT COOPERATION AND EFFORT FROM THE STATE OF ALASKA AND VOLUNTEERS FROM ENVIRONMENTAL GROUPS, FISHERMEN, AND THE LOCAL PUBLIC IN GENERAL. THE FEDERAL ON-SCENE COORDINATOR FOR THE CLEAN-UP OPERATION IS COAST GUARD COMMANDER STEVE MCCALL, THE CAPTAIN OF THE PORT OF VALDEZ. HE IS BEING ADVISED BY LEADING MARINE ENVIRONMENTAL AND POLLUTION EXPERTS REPRESENTING ALL OF THE AGENCIES AND PARTIES INVOLVED. EXXON HAS ASSUMED FULL RESPONSIBILITY FOR CLEAN-UP AND THEIR ACTIVITIES ARE BEING MONITORED BY CDR MCCALL.

DURING MY APPEARANCE BEFORE THIS SUBCOMMITTEE ON 9 MARCH, I TOLD YOU I WAS FLATTERED BY THE NUMBER OF MEMBERS PRESENT, WHICH SHOWED THEIR STRONG INTEREST IN OUR SERVICE. WE TALKED ABOUT THIS COMMITTEE'S THOROUGH UNDERSTANDING OF THE COAST GUARD AND ABOUT THE COAST GUARD'S RESOURCE NEEDS, AS OUR MISSIONS ARE BECOMING EVER MORE IMPORTANT TO THE NATION. AND, MOST IMPORTANTLY, WE DISCUSSED HOW FOR 200 YEARS THE COAST GUARD HAS PROVEN, TIME AFTER TIME, THAT ITS GREATEST STRENGTH IS IN ITS BASIC MULTI-MISSION EXPERTISE THAT GIVES IT THE FLEXIBILITY TO IMMEDIATELY RESPOND TO CHANGING NATIONAL PRIORITIES.

THE ALASKAN OIL SPILL IS A CASE IN POINT FOR OUR MULTI-MISSION NATURE.

THE COAST GUARD CUTTER RUSH, A 378-FOOT HIGH ENDURANCE CUTTER, IS NOW SERVING AS OUR AFLOAT COMMAND CENTER IN PRINCE WILLIAM SOUND PROVIDING AIR TRAFFIC CONTROL AND ADVISORY COVERAGE FOR THE MULTITUDE OF AIRCRAFT NOW IN THE VALDEZ AREA. BEFORE BEING DIVERTED TO SERVE THERE, RUSH WAS ESCORTING A JAPANESE OIL TANKER, WHICH SHE HAD JUST SEIZED FOR FISHERIES SUPPORT VIOLATIONS. THE CAPTAIN OF THE RUSH PLACED A TEAM ON THE JAPANESE VESSEL TO ACCOMPANY IT TO PORT AND PROCEEDED TO PRINCE WILLIAM SOUND. RUSH'S PATROL IN ALASKAN WATERS REFLECTS SOME OF THE ADDITIONAL EMPHASIS THIS COMMITTEE WANTS ON FISHERIES LAW ENFORCEMENT. THIS CLASS OF CUTTER IS ALSO AN IMPORTANT ASSET IN OUR DRUG INTERDICTION EFFORTS, AND IS OUR MOST CAPABLE MILITARY DEFENSE RESOURCE.

LET ME ALSO TELL YOU ABOUT THE COAST GUARD CUTTER SEDGE, A 40 YEAR OLD 180-FOOT OCEANGOING BOUY TENDER HOMEPORTED IN HOMER, ALASKA WHICH IS ALSO ON-SCENE ASSISTING WITH THE CLEAN-UP. IN THE PAST THREE MONTHS, SEDGE HAD BEEN UNDERWAY 77 OF 90 DAYS IN TRUE MULTI-MISSION FASHION, CONDUCTING MILITARY OPERATIONS WITH THE AIR FORCE, RESPONDING TO A POTENTIAL OIL SPILL AT KODIAK, THEN A MAJOR SEARCH AND RESCUE CASE NEARBY, BEFORE SPENDING SIX WEEKS CORRECTING AIDS TO NAVIGATION DISCREPANCIES CAUSED BY SEVERE WINTER STORMS. IN FACT, ONE AID SHE SERVICED, TO ENSURE IT WAS OPERATING PROPERLY, WAS THE BOUY THAT MARKS BLIGH REEF WHERE THE EXXON VALDEZ IS AGROUND. SEDGE HAD JUST RETURNED TO HER HOMEPORT WHEN SHE WAS DISPATCHED FOR THE VALDEZ CLEAN-UP.

WHERE SHE IS DEPLOYING CONTAINMENT BOOMS AND SKIMMERS, AND SERVING AS A LOGISTICS PLATFORM FOR SMALLER CRAFT. A SISTER SHIP, THE CGC IRONWOOD IS SIMILARLY INVOLVED IN THE AREA.

COAST GUARD AIR ASSETS ARE INVOLVED TOO. AN HH-65, EMBARKED ON THE CUTTER RUSH FOR SEARCH AND RESCUE, AND FISHERIES LAW ENFORCEMENT, IS NOW FLYING SUPPORT FOR THE CLEAN-UP OPERATION. OUR HH-3 HELICOPTERS WITH THE SAME MISSIONS AND LONGER ENDURANCE ARE ALSO FLYING SUPPORT. HC-130'S ARE FLYING IN CONTAINMENT BOOMS, BOATS, VEHICLES, AND PEOPLE. THESE ARE THE SAME HC-130'S THAT SERVE AS LONG-RANGE SEARCH AND DETECTION PLATFORM FOR SEARCH AND RESCUE AND LAW ENFORCEMENT.

OUR PEOPLE ARE MULTI-MISSION ALSO. WE TOOK PEOPLE DOING STAFF WORK ONE DAY, HAD COAST GUARD AIRCRAFT FLY THEM HUNDREDS OF MILES, AND THE NEXT DAY PUT THEM TO WORK IN SUPPORT OF CLEAN-UP OPERATIONS.

IN ALL, WE HAVE 3 CUTTERS, 5 BOATS, 6 AIRCRAFT AND APPROXIMATELY 400 PERSONNEL INVOLVED IN THE VALDEZ CLEAN-UP OPERATION.

I KNOW FROM MY PERSONAL DISCUSSIONS WITH YOU AND OTHER MEMBERS OF THIS COMMITTEE, THAT YOU PLANNED TO CLOSELY REVIEW OUR MARINE ENVIRONMENTAL PROTECTION MISSION CAPABILITIES, DURING THIS HEARING, LONG BEFORE THE ALASKAN OIL SPILL OCCURRED. I CAN ALSO SAY THE SAME FOR YOUR COLLEAGUES ON THE OTHER HOUSE AND SENATE SUBCOMMITTEES WITH JURISDICTION OVER THE COAST GUARD. THE MARINE ENVIRONMENTAL MISSION HAS LONG BEEN A MAJOR CONCERN OF SENATOR LAUTENBERG, MY SENATE APPROPRIATIONS SUBCOMMITTEE CHAIRMAN, WHO HAS ALSO VISITED THE SCENE AND OBSERVED THE CLEAN-UP OPERATION.

MR. CHAIRMAN, THE COAST GUARD WILL CONTINUE TO WORK CLOSELY WITH ALL CONCERNED IN MONITORING THE CLEAN-UP. WE WILL CONTINUE TO SEE THAT FEDERAL LAWS AND REGULATIONS ARE ADHERED TO AND THAT FEDERAL RESPONSIBILITIES ARE MET. AND, IN THE POST-ACCIDENT ANALYSIS, ALL PARTIES MUST COOPERATE TO IDENTIFY THE LESSONS TO BE LEARNED FROM THIS TRAGIC SPILL. WE MUST DO EVERYTHING REASONABLE TO MINIMIZE FUTURE ACCIDENTS LIKE THIS ANYWHERE IN U.S. WATERS. WE NEED TO REVIEW THE ENTIRE SYSTEM TO IMPROVE THE SAFETY OF TRANSPORTING HAZARDOUS CARGO IN OUR WATERWAYS. WE MUST REEXAMINE THE PLANS, THE PEOPLE, AND THE EQUIPMENT OF BOTH THE REGULATORS AND THE INDUSTRY WE REGULATE. I PLEDGE THE COAST GUARD'S FULL SUPPORT AND COOPERATION WITH THIS COMMITTEE AND OTHER INTERESTED PARTIES IN MEETING THESE OBJECTIVES.

MR. CHAIRMAN, I'LL BE PLEASED TO RESPOND TO QUESTIONS YOU AND THE MEMBERS OF THE SUBCOMMITTEE MAY HAVE.

Statement of
L. G. Rawl
Chairman of the Board
and Chief Executive Officer
Exxon Corporation

before the

Subcommittee on Coast Guard and Navigation
of the
United States House of Representatives
Merchant Marine and Fisheries Committee

Washington, D.C.

April 6, 1989

I am L. G. Rawl, Chairman of Exxon Corporation. I am here today to provide a frank response to questions regarding the Exxon Valdez oil spill and describe our comprehensive efforts to deal with its consequences.

But before I do this I want to repeat what I've said in print and on television a number of times; how sincerely and profoundly sorry I am that this accident happened. I speak not only for myself, but also for the thousands of Exxon employees who, because of their loyalty and commitment to Exxon, share my distress. We are especially sympathetic to the impacts on the residents of the Prince William Sound area and the people of the State of Alaska. Exxon takes full responsibility, and has done so from the beginning. And Exxon will continue doing all we can to clean up and mitigate the spill's effects; all necessary resources are being employed.

Before proceeding further, I would like to point out that the statement I am submitting today reflects the situation as it existed as of noon, Eastern Daylight Time, April 5, 1989. The spill of an estimated 240,000 barrels occurred early on March 24. We have certain other factual information: the weather was clear; the ship had no known mechanical problems; a course change was requested and authorized; the captain subsequently left the bridge; and tests made some time after the grounding showed the captain's alcohol level was above limits established by the Coast Guard. Obviously, this leaves many unanswered questions. Exxon is conducting an investigation of the accident, as are the National Transportation Safety Board and the Coast Guard. Other Federal and State investigations are also underway.

The Oil Spill Contingency Plan was activated immediately. It called for a two-phased response. The first phase was the responsibility of Alyeska. The second phase was our responsibility. And our response was immediate and thorough. We immediately established the priorities: preventing additional spills from the damaged tanker and mitigating the impact of the spill on the environment and the people of Alaska.

A major mobilization began immediately and by now involves dozens of vessels, airplanes, booms and skimming and other equipment; currently, hundreds of people are involved, receiving support and direction from over 200 Exxon experts and consultants.

We also mobilized to mitigate the economic impact on the communities of Prince William Sound. A claims office staffed by 30 people was opened and adequate funds were placed in accounts in local banks. Those funds are available to provide immediate, advance payments to those requiring monetary support while claims are being prepared, reviewed and processed. Our intention is to provide fair, reasonable and prompt settlements.

As of noon Tuesday, approximately 97% of one million barrels of crude oil remaining aboard the Exxon Valdez was successfully removed. Today, April 5th, we plan to begin the operation of floating the vessel off Bligh Reef and move it to a temporary anchorage for emergency repairs. When seaworthy, the Exxon Valdez will be moved to a drydock for permanent repairs.

For now, it is too early to assess the long term environmental impact. Natural resource damage assessment studies are underway. We cannot judge how long recovery will take in Prince William Sound. But I can assure you that since March 24 the accident has been receiving our full attention and will continue to do so until the job is done.

Finally, this catastrophic event will engage the attention of this and other committees and others in Government for some time. We stand ready to cooperate fully to establish the facts as to what happened. More importantly, however, we want to help in any way we can to establish what might be done to reduce the chances of such an accident happening again. I can assure you that actions are already underway within Exxon to revise policies and procedures in the light of this accident.

TESTIMONY OF

B. KENT BURTON
ASSISTANT SECRETARY FOR OCEANS AND ATMOSPHERE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

BEFORE THE

SUBCOMMITTEE ON COAST GUARD AND NAVIGATION
COMMITTEE ON MERCHANT MARINE AND FISHERIES
U.S.HOUSE OF REPRESENTATIVES

APRIL 6, 1989

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE:

EARLY IN THE MORNING OF MARCH 24, 1989, THE TANKER EXXON VALDEZ, CARRYING APPROXIMATELY 60 MILLION GALLONS OF NORTH SLOPE CRUDE OIL FROM THE VALDEZ TERMINAL OF THE TRANS-ALASKA PIPELINE, RAN AGROUND ON BLIGH REEF SHORTLY AFTER ENTERING PRINCE WILLIAM SOUND. IT SPILLED AN ESTIMATED 11 MILLION GALLONS INTO THE SOUND. BY APRIL 2, OIL HAD SPREAD THROUGHOUT AN AREA OF MORE THAN 800 SQUARE MILES, APPROXIMATELY ONE-THIRD OF THE TOTAL SURFACE WATERS OF PRINCE WILLIAM SOUND. PREVAILING CURRENTS AND WINDS ARE MOVING THE OIL IN A SOUTHWESTERLY DIRECTION THROUGH MONTAGUE STRAIT TOWARD THE OPEN WATERS OF THE GULF OF ALASKA. THE ROCKY SHORES OF NAKED, KNIGHT, SMITH, AND GREEN ISLANDS HAVE BEEN HEAVILY OILED. THE OIL IS EXPECTED TO FOLLOW THE COASTLINE OF THE KENAI PENINSULA, WHERE IT COULD IMPACT BIOLOGICALLY PRODUCTIVE AND SCENIC AREAS SUCH AS BLYING SOUND, RESURRECTION BAY, AND THE KENAI FJORDS NATIONAL PARK.

2

PRINCE WILLIAM SOUND, LOCATED ON THE SOUTH-CENTRAL PART OF THE ALASKAN COAST, IS A REMOTE, PRISTINE FJORD/ESTUARY-TYPE ECOSYSTEM CONTAINING IMPORTANT NATURAL RESOURCES. AT LEAST FIVE SPECIES OF THREATENED OR ENDANGERED MARINE MAMMALS FREQUENT THE AREA DURING SOME TIME OF THE YEAR. IT IS ONE OF THE LARGEST, UNDEVELOPED MARINE ECOSYSTEMS IN THE UNITED STATES, INHABITED ONLY BY ABOUT 6,000 PEOPLE IN SCATTERED TOWNS, VILLAGES, AND HAMLETS.

THE ECONOMY OF THE AREA IS BASED ON NATURAL RESOURCES AND INCLUDES (1) COMMERCIAL FISHING: PRINCE WILLIAM SOUND SUPPORTS MAJOR COMMERCIAL FISHERIES FOR SALMON AND HERRING, AS WELL AS SMALLER FISHERIES FOR KING CRAB, SHRIMP, AND HALIBUT. THESE COMMERCIAL FISHERIES ARE RENEWABLE RESOURCES THAT EACH YEAR ARE WORTH OVER $100 MILLION; (2) RECREATION: THE RELATIVE ACCESSIBILITY OF PRINCE WILLIAM SOUND TO ANCHORAGE, THE MAJOR POPULATION CENTER OF ALASKA, MAKES IT A FAVORITE OF LOCAL AND VISITING RECREATIONISTS WHO USE IT, EITHER INDIVIDUALLY OR IN ORGANIZED TOURS FOR FISHING, SIGHT-SEEING, KAYAKING, AND CAMPING; (3) SUBSISTENCE FISHING AND HUNTING; (4) LOGGING; (5) OIL TRANSPORTATION: PORT VALDEZ, LOCATED IN THE NORTHEASTERN PORTIONS OF PRINCE WILLIAM SOUND, IS THE SOUTHERN TERMINUS OF THE TRANS-ALASKA PIPELINE.

3

PERHAPS MOST DEVASTATING WITH THIS SAD EVENT WAS THE TIMING OF THE SPILL. AS THE HARSH ALASKAN WINTER TURNS TO SPRING, THE IRREPLACEABLE RESOURCES OF PRINCE WILLIAM SOUND ARE MOST IN JEOPARDY. FOR EXAMPLE, MIGRATING HERRING ARE FINALLY IN THE SOUND AND AVAILABLE FOR HARVEST. THE SPILL OCCURRED JUST DAYS BEFORE THE SCHEDULED OPENING OF THIS FISHERY, WHICH HAD TO BE CANCELLED. THIS MEANS NOT ONLY LOST JOBS AND INCOME, BUT ALSO LOST EXPORT VALUE TO THE UNITED STATES.

BUT MORE VALUABLE EVEN THAN HERRING IS THE SALMON FISHERY. ALL FIVE SPECIES OF SALMON ARE SUPPORTED BY PRINCE WILLIAM SOUND AND ITS RIVER SYSTEMS. ADULT FISH WILL BE AFFECTED WHEN THEY RETURN TO THE SOUND THIS SPRING AND SUMMER. BUT JUVENILE SALMON ARE NOW READY TO ENTER THE ESTUARIES THAT HAVE BEEN DAMAGED BY THE SPILL, AND WILL BEGIN FEEDING ON RESOURCES THAT HAVE BEEN DAMAGED. THIS IS THE TIME OF THEIR LIFE CYCLE THAT THEY ARE MOST DEPENDENT ON THE MARINE ENVIRONMENT IMPACTED BY THE SPILL, AND THERE IS A GOOD CHANCE THAT MANY OF THESE FISH WILL NOT SURVIVE. THE EFFECTS WILL BE FELT YEARS DOWN THE ROAD WHEN THESE FISH ARE NOT AVAILABLE AS ADULTS FOR SPAWNING, AND THE LOSS WILL LIKELY RIPPLE FAR INTO THE FUTURE.

4

THE EFFECTS ON THESE NATURAL RESOURCES AND THEIR HUMAN USES FORM THE BASIS FOR THE DAMAGE ASSESSMENT WORK THAT WILL BE UNDERTAKEN BY THE CO-TRUSTEES. IN THIS CASE, NOAA ACTS ON BEHALF OF THE SECRETARY OF COMMERCE AS A FEDERAL TRUSTEE FOR NATURAL RESOURCES IN COASTAL AND MARINE AREAS. THE SECRETARY OF THE INTERIOR, THE SECRETARY OF AGRICULTURE AND, SINCE THIS INCIDENT OCCURRED IN STATE WATERS, THE STATE OF ALASKA, ALSO HAVE SIGNIFICANT TRUSTEE INTERESTS.

NOAA'S DAMAGE ASSESSMENT AUTHORITY IS DERIVED FROM THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT AND THE CLEAN WATER ACT, AS WELL AS OTHER RESOURCE MANAGEMENT STATUTES WHICH PROVIDE THE LEGAL AND PROCEDURAL FRAMEWORK FOR CLAIMS AGAINST POTENTIALLY RESPONSIBLE PARTIES (PRPS) FOR LOSSES RESULTING FROM INJURY TO NATURAL RESOURCES CAUSED BY OIL SPILLS.

BASED ON THESE LEGAL AUTHORITIES, NOAA HAS FOUR PRINCIPAL RESPONSIBILITIES DURING AND AFTER AN OIL SPILL:

(1) AS THE SCIENTIFIC SUPPORT COORDINATOR (SSC) TO THE U.S. COAST GUARD BOARD ON-SCENE COORDINATOR (OSC). SPECIFICALLY, THE NOAA SSC:

A) PROVIDES LIAISON BETWEEN NATURAL RESOURCE, CHEMICAL, MEDICAL AND OTHER SCIENTIFIC EXPERTS AND THE OSC;

B) MODELS TRAJECTORIES OF SPILLED OIL TO PREDICT ITS FUTURE MOVEMENTS;

C) ASSESS THE NATURE, BEHAVIOR, AND FATE OF THE OIL POLLUTANTS, E.G., CHEMICAL SAMPLING AND ANALYSIS, IDENTIFICATION OF TOXIC PROPERTIES, AND ALTERATION OF PHYSICAL AND CHEMICAL CHARACTERISTICS UNDER VARIOUS ENVIRONMENTAL CONDITIONS;

D) ADVISES ON SAFETY PRECAUTIONS FOR RESPONSE PERSONNEL;

E) IDENTIFIES AREAS OF BIOLOGICAL IMPORTANCE REQUIRING PROTECTION;

F) HELPS THE OSC RESPOND TO INQUIRIES FROM LOCAL, STATE AND FEDERAL AGENCIES FOR ASSISTANCE IN SCIENTIFIC STUDIES AND ENVIRONMENTAL ASSESSMENTS; AND

G) ASSISTS THE OSC'S PUBLIC RELATION EFFORTS ON SCIENTIFIC ISSUES.

(2) AS A MEMBER OF THE REGIONAL RESPONSE TEAM, NOAA ASSISTS IN THE PREPARATION OF FEDERAL RECOMMENDATIONS TO THE ON-SCENE COORDINATOR;

(3) AS A FEDERAL TRUSTEE FOR LIVING MARINE RESOURCES, NOAA IS RESPONSIBLE FOR IDENTIFYING INJURIES TO RESOURCES, ASSESSING LOSSES ASSOCIATED WITH INJURY TO NATURAL RESOURCES, AND BRINGING CLAIMS AGAINST RESPONSIBLE PARTIES; AND

(4) AS THE NATION'S PRINCIPAL MARINE POLLUTION RESEARCH AND MONITORING AGENCY, NOAA EXAMINES THE LONG-TERM ECOLOGICAL CONSEQUENCES OF THE SPILL.

NOAA CURRENTLY HAS 25 EXPERTS ON SITE AT THE EXXON VALDEZ SPILL, INCLUDING PEOPLE FROM NOAA'S HAZARDOUS MATERIALS RESPONSE TEAM, THE NATIONAL MARINE MAMMAL LABORATORY, THE NATIONAL MARINE FISHERIES SERVICE AUKE BAY LABORATORY, THE OFFICE OF AIRCRAFT OPERATIONS, UNIVERSITY OF ALASKA SEA GRANT PROGRAM, AND THE NATIONAL WEATHER SERVICE. NOAA'S HAZARDOUS MATERIAL RESPONSE EXPERTS HAVE CONDUCTED EXTENSIVE OVERFLIGHTS OF THE SPREADING OIL

AND COASTAL REACHES OF PRINCE WILLIAM SOUND TO MONITOR SLICK MOVEMENT AND IDENTIFY THREATENED AREAS. IN FACT, THE NOAA HAZARDOUS MATERIALS RESPONSE TEAM PROBABLY HAS MORE COLLECTIVE EXPERIENCE WITH MARINE OIL SPILLS THAN ANY GROUP IN THE WORLD. SOME TEAM MEMBERS HAVE BEEN INVOLVED WITH EVERY MAJOR OIL SPILL THAT HAS OCCURRED IN THE LAST 13 YEARS, INCLUDING THE ARGO MERCHANT, THE AMOCO CADIZ, AND THE IXTOC BLOWOUT.

NOAA TRAJECTORY MODELS ARE AN IMPORTANT TOOL IN SPILL RESPONSE. THESE COMPUTERIZED FORECASTS ARE UPDATED CONTINUOUSLY TO PROJECT DIRECTION OF OIL MOVEMENT IN ORDER TO DEPLOY EFFECTIVELY CLEANUP EQUIPMENT AND CONTAINMENT BOOMS. SPECIAL ANALYSIS AND FORECASTS OF WIND AND WEATHER CONDITIONS ARE BEING PREPARED TO SUPPORT ON-SCENE OPERATIONS. WE HAVE INSTALLED AUTOMATED WEATHER STATIONS, PROVIDED BY THE DEPARTMENT OF THE INTERIOR, ON SEVERAL ISLANDS IN THE PATH OF THE SPREADING OIL TO OBTAIN ACCURATE WIND DATA FOR TRAJECTORY ANALYSIS.

NOAA SCIENTISTS HAVE BEEN TAKING WATER AND BIOLOGICAL SAMPLES AHEAD OF THE SPILL TO ESTABLISH BENCHMARKS. WE ARE ALSO, OF COURSE, SAMPLING THE IMPACTED AREAS. OUR BIOLOGISTS ARE CLOSELY FOLLOWING THE IMPACTS ON FISH STOCKS, BIRDS, MARINE MAMMALS, AND THE EXTENSIVE CRITICAL HABITATS THAT COMPRISE PRINCE WILLIAM SOUND.

UNFORTUNATELY, THE IMPACTS, EVEN AT THIS EARLY STAGE, ARE SUBSTANTIAL AND WE BELIEVE WILL GROW WORSE. THE ECOLOGY OF PRINCE WILLIAM SOUND IS ESPECIALLY VULNERABLE TO AN OIL SPILL OF

THE MAGNITUDE OF THE EXXON VALDEZ. THE INNUMERABLE ROCKY INLETS AND COVES ARE TRAPS WHERE THE WEATHERING CRUDE OIL IS COLLECTING AND BEING DEPOSITED ON THE BEACH. GRAVEL BEACHES ARE PARTICULARLY VULNERABLE TO FOULING. THE PROTECTED NATURE OF PRINCE WILLIAM SOUND CREATES AN ENVIRONMENT WITH LIMITED WAVE ACTION TO BREAKUP AND DISPERSE THE OIL. SUBARCTIC TEMPERATURES SLOW THE WEATHERING PROCESS OF THE CRUDE OIL, SLOWING THE RELEASE OF THE MORE TOXIC COMPONENTS AND RETARDING OVERALL DEGRADATION BY NORMAL CHEMICAL AND BIOLOGICAL PROCESSES. BECAUSE OF THESE FACTORS, THE EFFECTS OF THE EXXON VALDEZ MAY BE WITH US FOR QUITE AWHILE.

MR. CHAIRMAN, WE AT NOAA INTEND TO BE PARTICIPANTS IN THIS EFFORT FOR THE LONG HAUL. THIS IS WITHOUT A DOUBT THE WORSE OIL SPILL THAT HAS OCCURRED IN THE HISTORY OF THE UNITED STATES, AND NOAA HAS SUBSTANTIAL CAPABILITIES THAT WE ARE NOW USING TO ADDRESS THE CRITICAL PROBLEMS CAUSED BY THIS DISASTER.

WE WILL CONTINUE TO ASSIST THE COAST GUARD, THE STATE OF ALASKA, AND PRIVATE INTERESTS IN CONTAINING, AND TO THE EXTENT POSSIBLE, REPAIRING THE DAMAGE DONE BY THIS CATASTROPHE.

STATEMENT OF DAVID L. OLSEN, ACTING ASSISTANT DIRECTOR FOR REFUGES AND WILDLIFE, UNITED STATE FISH AND WILDLIFE SERVICE, BEFORE THE SUBCOMMITTEE ON COAST GUARD AND NAVIGATION, HOUSE COMMITTEE ON MERCHANT MARINE AND FISHERIES, REGARDING THE OIL SPILL IN PRINCE WILLIAM SOUND, ALASKA

April 6, 1989

Mr. Chairman, I am David Olsen, Acting Assistant Director for Refuges and Wildlife of the United States Fish and Wildlife Service. Prior to this assignment, I was the Service's Deputy Regional Director for Alaska. I appreciate this opportunity to provide the Subcommittee with information regarding the impact of the recent oil spill in Prince William Sound, Alaska, on the wildlife resources of that area.

The oil spill has had adverse, and often fatal, impacts on many species of wildlife in Prince William Sound. The Fish and Wildlife Service has management authority over migratory birds and sea otters, while the National Marine Fisheries Service has authority over other marine mammals and the fishery resources of the area. None of the bird species, or the Alaskan population of sea otters, are listed under the Endangered Species Act.

The scale of the spill's impact is just now starting to become clear. Our preliminary beach surveys have found 80 oiled birds per 100 meters of beach on the islands in the path of the spill. It is highly unlikely that most oiled birds can be recovered and cleaned, although we are making every effort to do so.

We anticipate that 3,000 to 5,000 sea birds could be recovered and cleaned. Absent their being recovered and cleaned, a high percentage of the birds that become heavily oiled will not survive. However, we do not at this time have any estimates of the likely number of birds that may be killed by the spill.

Eagles have been observed scavenging oil-killed birds. Although no dead eagles have been found, the Service believes that toxicity connected to oil-soaked birds could kill bald eagles. There are approximately 750 bald eagles resident in Prince William Sound.

An aerial survey conducted after the spill counted 90,000 birds, half of which were in the area impacted by the spill. Aerial surveys are not expected to produce accurate total population counts, since many birds and animals will not be seen. During this time of the year, there is a generally accepted figure of 350,000 birds resident in Prince William Sound. An additional 100,000 or more migrate into the area for the summer, a migration that is now starting to occur.

In addition, over 100,000 birds nest in the Chiswell Islands, an element of the Alaska Maritime National Wildlife Refuge to the southwest of the Sound. The first strings of oil have already reached these islands.

The total sea otter population of the Sound is estimated at 10,000. The heaviest concentration, estimated at 4,000 - 5,000 animals, is located in the southeastern part of the Sound. This represents the highest concentration of sea otters, 73 per square mile, recorded in Alaska. This population has not been effected by the spill, which is moving in a southwesterly direction.

Approximately half the otter population in the Sound is likely to be impacted by the spill. If the spill changes direction and goes into southeastern Prince William Sound, the situation could worsen drastically. We do not at this time have an estimate of how many sea otters might die from the effects of the oil.

The Fish and Wildlife Service presently has 24 people committed to monitoring, cleanup and bird and otter rescue activities. We have two chartered boats and 16 people working to locate oiled otters and bring them to the sea otter cleaning station operated by Exxon in Valdez. We are operating constant aerial surveys of the Sound to monitor the movement of the oil and its relationship to sea bird and sea otter populations. These aircraft are also alert for oiled otters.

Under current wind and tide forcasts, the leading edge of the spill could reach Afognak and Kodiak Islands this weekend. Service personnel are currently identifying and prioritizing areas for protective efforts on these islands.

Two Service vessels are being moved into the area to support damage assessment activities. This will consist primarily of large-scale surveys to document the losses of sea birds and sea otters, although any oiled birds or otters than can be recovered will be picked up.

An assessment of natural resource damages under the provisions of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) is being initiated. It is not yet possible to estimate what the extent of these damages may be.

This concludes my prepared statement. I will be pleased to answer any questions you may have.

TRANS-ALASKA PIPELINE LIABILITY FUND
PROCEDURES FOR SETTLING CLAIMS

TABLE OF CONTENTS

		PAGE
I.	GENERAL PROCEDURES	1
	A. INITIAL NOTIFICATION	1
	B. OIL SPILL RESPONSE COMMITTEE	2
	C. ADVERTISEMENT OF THE SPILL	4
	D. PAYMENT OF CLAIMS IN EXCESS OF $14 MILLION	6
	E. PAYMENT OF CLAIMS WHEN ALL CLAIMS MAY EXCEED $100 MILLION	9
II.	PROCEDURES FOR THE APPRAISAL AND SETTLEMENT OF CLAIMS	12
	A. WHEN A CLAIM MAY BE PRESENTED	12
	B. WHO MAY PRESENT A CLAIM	12
	C. DETERMINATION OF COMPENSATION AND DEFINITION OF "DAMAGES"	12
	D. FORM OF CLAIM	15
	E. PROOF OF DAMAGES	16
	F. EFFECT OF OTHER PAYMENTS TO CLAIMANT	20
	G. SETTLEMENT OF CLAIMS	20
	H. TIME LIMITATION	22
	I. SUBROGATION TO FUND	22

DRAFT

Edition Date: April 5, 1988

TRANS-ALASKA PIPELINE LIABILITY FUND
PROCEDURES FOR SETTLING CLAIMS

I. GENERAL PROCEDURES

A. Initial Notification.

1. Under 33 C.F.R. section 153.201 (1986), any person in charge of a vessel which has spilled oil, including oil that has been transported through the Trans-Alaska Pipeline System (TAPS oil), is required to notify the National Response Center (NRC) of the Coast Guard that a spill has occurred, where it has occurred, and how much has spilled.

2. The NRC has been instructed to contact the Trans-Alaska Pipeline Liability Fund (Fund) whenever it has been notified of a marine spill of TAPS oil and to give the Fund the name of the vessel, its owner-operator, the amount spilled and the location. The NRC's local Washington, D.C. phone number is (202) 426-2675 or it can be reached outside Washington, D.C. at 800-424-8802.

3. The Administrator of the Fund need not take any action regarding a marine spill of TAPS oil if:

a. the discharge is less than one hundred barrels, or,

b. it is cleaned up or dispersed within forty-eight hours or,

c. the spill has not come within two miles of an area of substantial commercial activity, or

d. initial Coast Guard reports indicate that the damages from the spill will not reach $14 million.

4. If the spill is more than 100 bbls. or threatens to affect property or land and if the Fund has not already been advised of a contact person designated by the owner-operator pursuant to 43 C.F.R. section 29.8 (c)(1), the Fund's Administrator or a representative of the Administrator will communicate with the owner-operator, and request the name of its contact person.

5. At the discretion of the Fund's Administrator, the Administrator will provide the contact person with the Fund's Procedures for Settling Claims.

B. Oil Spill Response Committee.

1. The Administrator will form an Oil Spill Response Committee (Committee) consisting of the Administrator, a member of the Board named by the Administrator, and the Fund's counsel at such time as:

a. a single discharge of TAPS oil exceeds one hundred barrels, and

b. it is not cleaned up or dispersed within forty-eight hours, and

c. it has come, or is likely to come, within two miles of an area of substantial commercial activity, and/or

d. it appears that damage claims resulting from the spill may reach $14 million.

2. The Committee's function is to ensure that the Fund's duties under the Act and applicable regulations with respect to the spill are met.

3. The Committee will request that the contact person make available to the Administrator, or his nominee, pursuant to 43 C.F.R. 29.9(b):

a. copies of the claims received by the owner-operator of the vessel and/or

b. summaries of claims which include the types of claims received, the total number received of each type of claim, a statement of how many claims of each type have been paid by the vessel owner or operator and the total amount paid for each type of claim,

c. copies of any adjuster's reports,

d. such other information as the Administrator reasonably requires.

4. The Committee shall contract with a claims adjusting and appraising company (Adjuster), unless the owner-operator agrees in writing to satisfy all legitimate claims arising from the spill up to $100 million.

a. The Adjuster will be directed to evaluate the spill and estimate whether damage claims resulting from the spill are likely to exceed $14 million.

b. The Adjuster will examine available Coast Guard pollution reports, reports from vessel and terminal owners and operators, and information concerning the

claims filed with the owner-operator as reported by the contact person and will consider the amount of oil discharged, the location of the incident and the results of containment and clean-up operations, in estimating the value of damages resulting from the spill.

c. On a date set by the Committee, but no later than 45 days after the Fund has received notice of the spill, the Adjuster will submit to the Committee an evaluation of the potential damage claims from the TAPS oil spill.

C. Advertisement of the Spill.

1. If the Adjuster's evaluation made pursuant to 4.c above concludes that the spill will not result in damage claims in excess of $14 million, the Committee may consider the case closed.

2. If the Adjuster's evaluation made pursuant to 4.c above concludes that the spill may result in damages in excess of $14 million, the Committee, within 45 days of the date the Fund receives notice of the oil spill, will advertise the procedures for filing claims for damages from the oil spill and will direct the Adjuster to continue coordination with the contact person regarding claims filed, claims rejected, claims paid, appraisal method and other information relevant to the damages from the oil spill. If, within the 45 day period, there is insufficient information to conclude that the spill may result in damages in excess of $14 million,

the Committee may postpone a decision to advertise. If, based upon later information, the Committee concludes that the $14 million level may be met, it shall commence advertising immediately.

3. The advertisement shall be placed in a newspaper of general circulation in the area that may be affected by oil from the spill.

a. The notice will be published at least twice a week for five (5) successive weeks and shall be printed in the principal language of that area.

b. The published notice shall be entitled "NOTICE OF OIL SPILL" and shall be in the following form:

> On [date] the Trans Alaska Pipeline Liability Fund [Fund] was notified of an incident involving a spill of oil from a vessel that had received such oil from the Trans-Alaska Pipeline. The oil was spilled by the [vessel name] which is owned and operated by [owner/operator's name]. The amount spilled was approximately [amount] and took place in the vicinity of [location], on or about [date of spill].
>
> Under the terms of the Trans-Alaska Pipeline Authorization Act, the owner/operator of a vessel transporting oil from the Trans-Alaska Pipeline is liable for all damages arising from a spill on water of its oil unless the spill was a result of an act of God or negligence on the part of the U.S. Government. In the event that the amount of legitimate damages exceeds the liability limit of the vessel owner/operator of $14,000,000, then the Fund is liable for the damages in excess of $14,000,000 up to $100,000,000.

> [Owner of vessel] and [operator of vessel] have named [name of contact person] to be the person who will coordinate with the Fund in handling the resolution of any claims arising out of the oil spill incident. Any person who has incurred damages directly resulting from the oil spill incident referred to above may submit a claim in accordance with 43 C.F.R. section 29.9 (a). Claims should include the claimant's name, address, and phone number, the basis of the claim and a request for any further information which may be required.
>
> In order to be considered by the Fund, claims must be filed within two years of the date of the oil spill incident causing the damages.

c. Proof of publication of the "NOTICE OF OIL SPILL" shall be obtained from the newspaper in which the notice was published and retained in the Fund's corporate files.

D. Payment Of Claims In Excess Of $14 Million.

1. The Committee will request that the contact person notify the Adjuster:

a. when claims for damages reach $5,000,000 and again when they reach $10,000,000,

b. when claims for damages from a single spill incident approach $14 million,

c. whether the vessel owner and/or operator will assume the responsibility to pay damages over the $14 million level. See 43 C.F.R. section 29.9(d).

2. If the vessel owner and/or the vessel operator agree to assume responsibility for damages above $14 million, the Committee may have the Adjuster continue to monitor claims made, claims rejected and claims paid. If the vessel owner and/or operator subsequently do not pay for damages in excess of $14 million, the Committee will follow the procedures set forth in Part I, Section D.3.

3. When the Adjuster advises the Committee that the amount of damage claims is approaching $14 million and the vessel owner and the vessel operator have indicated that neither will assume responsibility for damages in excess of $14 million and it is less than two years from the date of the incident, the Committee will:

a. publish an advertisement in the form set forth in Part I, Section C.4.b. in the same newspapers as those in which the Fund advertised originally in accordance with Section C; the advertisement will substitute the name and address of the Fund as the party to whom claims are to be submitted;

b. direct the Adjuster to appraise the actual claims and potential claims using the principles set forth in Part II, Section C.3, to determine whether damages are likely to exceed $100 million; and

c. direct the Adjuster to follow Part I, Sections D.4-.5 and E.1-.5 and Part II of these Procedures to settle the claims.

4. If the Adjuster determines that any of the claims or any portion of a single claim paid by the vessel owner

and/or the vessel operator do not constitute damages, as defined in 43 C.F.R. section 29.1 (e), the Adjuster will notify the Committee of its determination. The Committee will review the Adjuster's basis for its determination. If the Committee agrees with the Adjuster, the Committee will notify the contact person that it does not consider the claim as meeting the definition of damages and that it will not include the claim in the Committee's calculation of damages for purposes of determining when the $14 million level has been reached.

5. When the Adjuster determines that the vessel owner and/or operator have paid claims for damages compensable under the Act in the amount of $14 million, the Adjuster will advise the Committee and the Committee will direct it to begin its appraisal of claims against the Fund.

6. The Adjuster will report its appraisal of each claim to the Committee, which will review each appraisal and recommend that the claim be paid, in whole or in part, or denied.

7. At such time as the Administrator determines that the Fund will be making payments to claimants for damages related to a spill of TAPS oil, the Administrator will request that the Board decide the manner in which the claims will be settled. The Board can elect:

a. to vote on each claim upon presentation by the Committee of its findings, or

b. to delegate such authority to the Administrator pursuant to 43 C.F.R. section 29.9(h)(1), or

c. to delegate authority to the Administrator to settle claims up to a specified dollar amount per claim or in the aggregate, or both, and retain the right to approve claims outside those limits.

E. Payment Of Claims When All Claims May Exceed $100 Million.

1. All claimants against the Fund will be notified that their claims, if determined to constitute damages, may be prorated if damage claims are expected to exceed $100 million, as provided in the Act. Any payment of claims will be accompanied by a subrogation form which will contain the following paragraph:

> I, _____, accept this payment subject to my obligation to refund some or all of the payment should the Fund be required to make pro rata payments for damages for this spill because the total damage claims may exceed $100 million. (See Attachment 1)

2. If the Fund pays claims for damages and subsequently determines that damage claims are reasonably likely to exceed $100 million, payment of claims will be suspended and the procedures set out in Paragraph E.3 - .5 will be followed.

3. If, pursuant to Part I, Section D.3.b and Part II, Section C.3, the Adjuster determines that damages are reasonably likely to exceed $100 million, and the Committee concurs, the Committee will direct the Adjuster to follow

the procedures set forth in this Section E and the Committee will notify all claimants that claims cannot be fully paid until the end of the claim period.

4. The Adjuster will evaluate claims against the Fund as they are received to determine whether the claims constitute damages under the Act. After the time for filing claims has passed, i.e., two years of the date the spill occurred, the Adjuster will calculate the percentage by which each claim must be reduced so that no more than $100 million is paid in damages. The Adjuster will then adjust each verified claim for damages and present the adjusted claim to the Committee for its review and for ultimate settlement of the claims in accordance with the Appraisal and Settlement Procedures, set forth in Part II, below.

5. If at any time the Committee or the Fund determines that claims will not exceed $100 million, claimants will be paid the full amount of damages, or, if partial payment has already been made, the difference between the amounts paid and the full amount of damages.

6. If any claims are paid in full by the Fund before the Adjuster estimates that claims will exceed $100 million, the Fund will request reimbursement from the claimants who have already been paid, and follow the procedures set forth in Section E.3 for any claimant who complies with the Fund's request. If any claimant who has already been paid refuses to reimburse the Fund, the Fund will take whatever action is

11

necessary to recover the difference between the amount paid to the claimant and the amount owed under a pro rata payment scheme pursuant to 43 U.S.C. section 1653(c)(3).

II. PROCEDURES FOR THE APPRAISAL AND SETTLEMENT OF CLAIMS

A. When A Claim May Be Presented.

1. A claim against the Fund will be processed only after the total claims constituting damages within the definition of the Trans-Alaska Pipeline Authorization Act (the Act) exceed $14 million for a single oil spill incident.

2. A claim that is submitted to the Fund before the aggregated damages for the oil spill incident reach $14 million will be forwarded to the contact person designated by the owner and the operator of the vessel from which the oil was discharged.

3. Any claim that is received by the Fund after the time limitation for submitting claims will be denied. See Part II, Section H.

B. Who May Present A Claim.

1. A claim for property loss or damage may be presented by the damaged party, his duly authorized agent, his successor in interest, or his subrogee.

2. The claims of a subrogor and a subrogee for damages arising out of the same incident constitute a single claim.

3. Each subrogee and his successor in interest must substantiate his interest or right to file a claim by appropriate documentary evidence.

C. Determination Of Compensation And Definition Of "Damages." Unless otherwise prescribed by statute, or implementing

regulations, compensation for damages is determined in accordance with the following principles.

1. Compensation shall be available only for damages as defined in 43 C.F.R. section 29.1(e). "Damages" means any economic loss arising out of or directly resulting from a spill incident.

2. If the property has been or can be economically repaired, the measure of damages is the actual or estimated net cost of the repairs necessary to restore the property to substantially the condition which existed immediately before the incident. Damages so determined may not, however, exceed the value of the property immediately prior to the incident less the value thereof immediately after the incident. To determine the actual or estimated net cost of repairs, the value of any salvaged parts or materials and the amount of any net appreciation in value (betterment) effected through the repair is deducted from the actual or estimated gross cost of repairs, and the amount of any net depreciation in the value of the property is added to such gross cost of repairs, provided such adjustments are sufficiently substantial in amount to warrant consideration. All cost of repair awards are based upon the lower or lowest of two or more competitive bids, if possible to obtain, or upon statements or estimates by two or more competent and disinterested persons, preferably reputable dealers familiar with the type of property damaged, lost or destroyed.

3. If the property cannot be economically repaired, the measure of damages is the value of the property immediately before the incident less the value thereof immediately after the incident. All estimates of value should be made, if possible, by two or more competent and disinterested persons, preferably reputable dealers familiar with the type of property damaged, lost or destroyed.

4. Loss of use of damaged property which is economically reparable may, if claimed, be included to the extent of the reasonable expense actually incurred for appropriate substitute property, but only for such period as is reasonably necessary for repairs, and provided that idle substitute property of the claimant was not employed. When substitute property is not obtainable, other competent evidence such as rental value, if not speculative or remote, may be considered. When substitute property is reasonably available but is not obtained and used by the claimant, loss of use is not payable.

5. Lost income resulting from the spill except to the extent income gained from other activities offsets the loss, is allowable as damages.

6. Punitive damages, interest, court costs, attorney's fees, or other similar charges are not allowable as elements of damage.

D. Form Of Claim.

1. Claims must contain the information required by 43 C.F.R. section 29.9, which is the basis for this Section D and Section E below.

2. A claim, and all supporting papers, must show the name, address, and telephone number of the claimant and must be signed in ink by the claimant, or by a duly authorized agent, a successor in interest, or a subrogee. If a claim is submitted by an agent, it must include the name and address of the claimant; the name, address and telephone number of the agent; and evidence of the agent's authority to present the claim. All claims on behalf of a corporation shall be signed by a duly authorized officer of that corporation.

3. All claims submitted to the Fund must set forth a detailed statement of the circumstances, if known, causing the loss or damage claimed and shall include the date, time and location of the occurrence and when the loss or damage was first discovered by the claimant. Attachments to the claim should include, if available or obtained, copies of statements of witnesses, accident or casualty reports, photographs and drawings, and statements and proofs of loss submitted to insurers. The claim must include a detailed listing of damages incurred, categorized according to the type of damage involved, and applicable documentation supporting the damages claimed.

E. Proof Of Damages.

1. Claims for physical loss or damage to real or personal property shall be documented by:

a) An itemized statement or invoice covering the cost to repair or replace the damaged or destroyed property or where such property has not been repaired or replaced, an itemized estimate of the cost to repair or replace it made by a disinterested and competent third party. (Where possible to do so, two repair estimates should be obtained.)

b) An appraisal or survey report detailing the scope of the damage sustained, prepared by a disinterested and competent person, preferably a reputable dealer, appraiser or other qualified individual familiar with the subject matter. The appraisal or survey report shall include:

i) a statement that the Fund, the owner and operator and anyone else interested in attending the appraisal or survey was given advance notice of the date and time that such appraisal or survey was to be performed or that sets forth the reasons why such notice could not be given.

ii) as respects property so severely damaged that it cannot be economically repaired or used, a statement of the value thereof before and after the damage was sustained.

c) For claims for loss of natural resources, a statement of the claimant's economic use of the natural resource claimed to have been lost. The statement shall include:

i) a description of the natural resource used by the claimant,

ii) a description of the economic use of the natural resource by the claimant supported by receipts, tax returns or other evidence of income or other economic value derived from the natural resource for the three years preceding the alleged loss,

iii) a statement of the value of the natural resource before and after the damage was sustained, which must be documented through

- photographs in those cases where the claimed damage is visible,
- reference to an order of the federal, state, provincial or municipal health department forbidding a particular use of the natural resource where the claimed damage relates to health hazards posed by use of the natural resource, or
- an engineering report where the claimed damage relates to the claimant's inability to

use the natural resource for industrial purposes.

d) Costs of appraisals, surveys and estimates (except scientific studies purporting to demonstrate damages to natural resources) are includable as elements of damage and must be supported by invoices.

2. Claims for loss of earnings or use and extra expenses incurred during the period of repairs to damaged property must be supported by statements or documents showing:

a) The date the property was damaged.

b) The name and location of the repair facility.

c) The beginning and ending dates of repairs.

d) A complete description of all repairs performed segregating any work performed for the owner's account and not attributable to the incident involved, and the costs thereof.

e) The date and place where the property was returned to service after completion of repairs and an explanation, if applicable, of any delay.

f) If substitute property was rented or leased by the claimant as a replacement for the damaged property during the time of its repair, an explanation as to the necessity for renting or leasing such substitute, and invoices detailing the costs incurred with respect thereto, the time and use and nature thereof, and a statement detailing costs incurred that would have been

similarly incurred by the claimant in utilization of his own property.

g) If the property was employed at the time of damage, or would have been employed, the claimant must submit a statement of operating expenses that were, or would have been, incurred. This must include wages and all bonuses that would have been paid during the period of employment, the value of fuel that would have been consumed during the period of employment, the value of consumable stores that would have been consumed during the period of employment, and all other costs of operation which would have been incurred including, but not limited to, license and parking fees, personal expenses, harbor fees, wharfage, dockage, shedding, stevedoring, towing, pilotage, inspection, tollage, lockage, anchorage and mooring, grain elevation, storage and customs fees.

h) Claims for extra expenses incurred by claimant for any reason in connection with the incident causing damage to the claimant must be supported by a statement detailing the nature of the extra expenses incurred and invoices detailing the amount of such expenses.

i) Evidence of income for the period of repairs for three years preceding the date of alleged loss.

3. Claims for loss of income must be accompanied by the claimant's statement of income for the period of 12 months

prior to the spill and a statement of income derived from any source during the period for which the loss is claimed.

4. Claims submitted by an agent of, a subrogee of, or a successor in interest to the owner of the damaged property must be supported as to liability and measure of damages in the same manner as required of the party who sustained the damage. Documentary evidence of payment to a subrogor does not constitute evidence of liability of the Fund or conclusive evidence of the amount of damages. The Fund will make an independent determination on the issues of fact and law upon the available evidence.

F. Effect Of Other Payments To Claimant.

The total amount to which the claimant and his subrogees are entitled will be computed as follows:

The total of the loss or damage suffered less any payment the claimant has received from any joint tort feasor or such joint tort feasor's insurer, or from any other source.

G. Settlement Of Claims.

1. When the Fund has determined that a claim should be approved in full pursuant to the procedures set out in Part I, paragraphs D and E, the claim will be certified to the appropriate disbursing officer for payment to the claimant.

2. When the claim is determined to be meritorious only in part, the Fund will:

a) Notify the claimant in writing of the determination;

b) Advise the claimant that, if he desires to accept the settlement offer, he must reply within 45 days of the date of the settlement offer, and that, except upon a showing of good cause, failure to accept the settlement offer within 45 days will constitute a rejection, thereby rendering the offer void;

c) Obtain from any claimant who accepts a settlement offer, a written acceptance and release for settlement in the reduced amount;

d) Advise the claimant that, in the event he does not desire to accept the settlement offer, he may, by submitting within 45 days the reasons for his rejection, request that the Fund reconsider the merits of his claim.

3. When a claim is determined to be without merit, the claimant will be notified in writing.

4. If a claimant demonstrates a basis for the Fund to reconsider the merits of his claim, the Fund may, in its discretion, review the claim, applying the same principles and procedures as are applicable when claims are initially presented. The Fund shall notify the claimant in writing if it decides not to reconsider the claim.

5. Each claimant accepting a settlement offer must sign the following statement:

I, _____, accept this payment as final and conclusive settlement of my claim against the Trans-Alaska Pipeline Liability Fund and agree that it constitutes a complete release of any claim(s) I may have against the Fund. (See Attachment 1)

6. Any claimant aggrieved by the Fund's decision on a claim may seek review of the decision in the appropriate Federal district court.

H. Time Limitation.

No claim may be presented, nor any action be commenced, for damages recoverable under the Act and regulations promulgated pursuant to it unless that claim is presented to, or that action is commenced against the vessel owner, operator or their guarantor or against the Fund, as to their respective liabilities, within two years from the date of the incident causing the damages.

I. Subrogation To Fund.

No compensation will be made to any claimant, agent, successor in interest, or subrogee, unless:

1. A subrogation agreement in favor of the Fund in the amount paid is executed by the claimant, and

2. An agreement is signed by the claimant to pay over to the Fund any recovery obtained by him from third parties up to the amount paid to the claimant by the Fund.

3. The agreement shall include the following paragraph:

I, _____, accept this payment subject to my obligation to refund some or all of the payment should the Fund be required to make

pro rata payments for damages for this spill because the total damage claims may exceed $100 million. (See Attachment 1)

DEPARTMENT OF THE INTERIOR

Office of the Secretary

43 CFR Part 29

Trans-Alaska Pipeline Liability Fund

AGENCY: Department of the Interior, Office of the Secretary.

ACTION: Final rule.

SUMMARY: This final rule amends the regulations for supervision and administration of the Trans-Alaska Pipeline Liability Fund (Fund) provided for by section 204(c) of the Trans-Alaska Pipeline Authorization Act (Act). The final rule eliminates inconsistencies between the existing regulations and the Act, clarifies confusing language and deletes unnecessary provisions.

EFFECTIVE DATE: March 7, 1988.

FOR FURTHER INFORMATION CONTACT: Bruce Blanchard, Office of Environmental Project Review, Room 4238, Department of the Interior, Washington, DC 20240, telephone (202) 343-3891.

SUPPLEMENTARY INFORMATION: On June 29, 1987, the Department of the Interior published for comment in the Federal Register a proposed rule that would amend its regulations for supervision and administration of the Fund. This proposed rule was published in response to a petition from the Fund. The petition was published as part of the proposed rule. The petition and the preamble to the proposed rule described the bases for the proposed changes to the current regulations, and the Department's observations on the petition, respectively (52 FR 24181).

The Department of the Interior received three sets of comments from two sources. One commenter was the Environmental Protection Agency, which the Department of the Interior had specifically requested to comment (52 FR 24182). The other was the Fund, which on two separate occasions provided substantive comments and comments concerning typographical errors contained in the proposed rule.

A summary of the comments and the Department's responses to the comments follow.

1. Notification Requirements

EPA commented that the first sentence of proposed § 29.8(a) failed to make clear whether the discovery of an incident must be made by the person in charge of the vessel and whether the incident must involve the vessel. EPA then suggested language to clarify the meaning of the sentence. As the Department intended that the obligations of the person in charge of the vessel would begin as soon as he or she becomes aware of an incident involving his or her vessel, this comment has merit. Accordingly, the Department has revised the first sentence, although the specific language suggested by EPA has not been used.

EPA also suggested, concerning the same sentence, that the regulation specify that the notification of the incident be made to the National Response Center rather than the "Coast Guard." EPA's stated concern was that without the change a person in charge of a vessel might contact a Coast Guard unit rather than the National Response Center. As the Department's intent was that the person in charge of the vessel should contact the National Response Center, the EPA's suggestion is accepted with clarification to assure it is understood that the National Response Center is operated by the Coast Guard.

EPA also suggested that in the last sentence of proposed § 29.8(a) the citation to the Federal Water Pollution Control Act (FWPCA) be clarified, and that a reference be made to EPA's recently promulgated regulations implementing the notification requirements of the FWPCA. The citation clarification has been made. The Department also agrees to make reference to the EPA's notification requirements; the change is consistent with the Department's intent that the § 29.8 notification requirements are in addition to notification requirements under the FWCPA.

Finally, EPA suggested that in proposed § 29.8(b) the term "Coast Guard" be replaced with "National Response Center." This change has been made. To be consistent with the other changes in § 29.8 the reference to "Coast Guard" in § 29.8(c)(1) has also been changed to "National Response Center." A conforming change has also been made to § 29.1(d).

2. Definitions

EPA comments that the use of the term "spill" in proposed § 29.8(c)(1) and (d) could cause confusion as the term "spill" is not defined in proposed § 29.1. EPA suggests that the term "incident", which is defined in proposed § 29.1, be used instead of "spill". The Department agrees that without some reference to "spill" in § 29.1 some confusion could arise. Accordingly, the Department is amending § 29.1(h) to indicate that "incident" and "spill" can be used interchangeably.

EPA also commented that proposed § 29.1(h) (definition of "incident") would limit incidents to instances where there is a "discharge of TAPS oil". The Department recognizes that section 204(c)(1) of the Trans-Alaska Pipeline Authorization Act applies to "discharges of oil" from a vessel carrying TAPS oil, and did not intend to change the statutory application. Accordingly, the Department has amended § 29.1(h) to indicate that an incident "means a discharge of oil from a vessel which is carrying TAPS oil loaded on that vessel. . . ."

The Fund questioned in two respects the basis for the Department's disagreement with the Fund's rationale for the deletion of proposed § 29.1(e)(7) (numbered as § 29.1(d)(7) prior to the promulgation of this final rule), found at 52 FR 24181–82. First, the Fund questions the Department's observation that the current regulation could be read as making loss of tax revenue an element of damages without a showing of proximate cause; the Fund notes that proximate cause must be shown for all damages under the Act. The Fund is correct; under the current regulations and as amended, any claim may be paid only upon a showing that the economic loss arises out of or results directly from an incident. See § 29.1(e).

The Fund also asserts the Department states incorrectly in the preamble to the proposed rule that loss of tax revenues may constitute damages. The Department disagrees with this comment. The Department's intent is only that if a claimant is able to demonstrate that any economic loss arises out of or results directly from an

incident, that claim may be paid under the Act. If a claimant can make this showing for loss of tax revenues, the claim may be paid by the Fund.

3. Typographical and Clarifying Changes

The Department has made a number of minor changes of a typographical nature as the result of comments from the Fund and Departmental staff. The Department has also made several minor clarifying changes based on comments from Departmental staff.

Executive Order 12291 and the Regulatory Flexibility Act

The Department of the Interior has determined that this document is not a major rule under E.O. 12291, because these regulations deal only with the administration of the Fund. Any economic effects should be very small, and any adverse effects on competition, employment, investigation, productivity, innovation, or on the ability of United States based enterprises to compete with foreign-based enterprises in domestic or export markets are expected to be insignificant. Because these regulations deal only with the administration of the Fund and it is not anticipated that these regulations will affect any small entities, the Department has certified that this document will not have a significant economic effect on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et. seq.).

Paperwork Reduction Act

The information collection requirements contained in amended 43 CFR 29.9 have been approved by the Office of Management and Budget as required by 44 U.S.C. 3501 et seq. and assigned approval No. 1084–0028.

Environmental Effects

This rule is categorically excluded from the National Environmental Protection Act (NEPA) process because it is of an administrative, financial, legal, technical and procedural nature, and therefore neither an environmental assessment nor an environmental impact statement is required (40 CFR 1508.4; 516 DM 2.3A).

Drafting Information

The primary authors of this document are Robert H. Moll and Timothy S. Elliott of the Office of the Solicitor, in consultation with Bruce Blanchard, Director, Office of Environmental Project Review.

List of Subjects in 43 CFR Part 29

Alaska, Oil pollution, Pipelines.

This final rule is issued under the authority of section 204(c) of the Trans-Alaska Pipeline Authorization Act, 43 U.S.C. 1653(c)(4), and sections 311(p)(1) and 311(p)(2) of the Federal Water Pollution Control Act, 33 U.S.C. 1321(p)(1), (2).

For the reasons set forth in the preamble, Title 43, Part 29 is revised to read as set forth below.

PART 29—TRANS-ALASKA PIPELINE LIABILITY FUND

Sec.

29.1 Definitions.
29.2 Creation of the Fund.
29.3 Fund administration.
29.4 General powers.
29.5 Officers and employees.
29.6 Financing, accounting and audit.
29.7 Imposition of strict liability.
29.8 Notification and advertisement.
29.9 Claims, settlement and adjudication.
29.10 Subrogation.
29.11 Investment.
29.12 Borrowing.
29.13 Termination.
29.14 Information collection.

Authority: Sec. 204(c), Trans-Alaska Pipeline Authorization Act, 43 U.S.C. 1653(c); Secs. 311(p)(1) and 311(p)(2) of the Federal Water Pollution Control Act, 33 U.S.C. 1321 (p)(1), (2).

§ 29.1 Definitions.

As used in this part:

(a) "Act" means the Trans-Alaska Pipeline Authorization Act, Title II of Pub. L. 93–153, 43 U.S.C. Secs. 1651, et seq.

(b) "Affiliated" means:

(1) Any person owned or effectively controlled by the vessel Owner or Operators; or

(2) Any person that effectively controls or has the power to effectively control the vessel Owner or Operator by—

(i) Stock interest, or

(ii) Representation on a board of directors or similar body, or

(iii) Contract or other agreement with other stockholders, or

(iv) Otherwise, or;

(3) Any person which is under common ownership or control with the vessel Owner or Operator.

(c) "Claim" means a demand in writing for payment for damage allegedly caused by an incident.

(d) "Contact person" means a person designated by the Owner or Operator and identified to the Fund Administrator and the National Response Center operated by the Coast Guard as the official responsible for coordinating with the Fund the resolution of claims filed as a result of a TAPS oil spill.

(e) "Damage" or "damages" means any economic loss, arising out of or directly resulting from an incident, including but not limited to:

(1) Removal costs;

(2) Injury to, or destruction of, real or personal property;

(3) Loss of use of real or personal property;

(4) Injury to, or destruction of, natural resources;

(5) Loss of use of natural resources; or

(6) Loss of profits or impairment of earning capacity due to injury or destruction of real or personal property or natural resources, including loss of subsistence hunting, fishing and gathering opportunities.

(f) "Fund" means the Trans-Alaska Pipeline Liability Fund established as a non-profit corporate entity by section 204(c)(4) of the Trans-Alaska Pipeline Authorization Act.

(g) "Guarantor" means the person, other than the Owner or Operator who provides evidence of financial responsibility for an Owner or Operator, and includes an underwriter, insurer or surety company.

(h) "Incident" (or "spill") means a discharge of oil from a vessel which is carrying TAPS oil loaded on that vessel at the terminal facilities of the Pipeline and which:

(1) Violates applicable water quality standards, or

(2) Causes a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

(i) "Operator of the Pipeline" means the common agent designated by the Permittees to operate the Pipeline.

(j) "Owner of the oil" means the Owner of TAPS oil at the time that such oil is loaded on a vessel at the terminal facilities of the Pipeline.

(k)(1) "Owner" means, in the case of a vessel, the person owning the vessel carrying TAPS oil at the time of an incident, and

(2) "Operator" means, in the case of a vessel, the person operating, or chartering by demise, the vessel carrying TAPS oil at the time of an incident.

(l) "Person" means an individual, a corporation, a partnership, an association, a joint stock company, a business trust, an unincorporated organization, or a Government entity.

(m) "Person in Charge of the Vessel" means the individual on board the vessel with the ultimate responsibility for vessel navigation and operations.

(n) "Permittees" means the holders of the Pipeline right-of-way for the Trans-Alaska Pipeline System.

(h) "Pipeline" means any Pipeline in the Trans-Alaska Pipeline System.

(i) "Secretary" means the Secretary of the Interior or an authorized representative of the Secretary.

(j) "TAPS oil" means oil which was transported through the Trans-Alaska Pipeline and loaded on a vessel at the terminal facilities of the Pipeline.

(k) "Terminal facilities" means those facilities of the Trans-Alaska Pipeline System at which oil is taken from the Pipeline and loaded on vessels or placed in storage for future loading onto vessels.

(l) "Trans-Alaska Pipeline System" or "System" means any Pipeline or terminal facilities constructed by the Permittees under the authority of the Act.

(m) "United States" includes the various States of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Canal Zone, Guam, the Virgin Islands, American Samoa, the Commonwealth of the Northern Mariana Islands, and the Trust Territory of the Pacific Islands.

(n) "Vessel" means any type of watercraft or other artificial contrivance, used or capable of being used as a means of transportation on water, which is engaged in any segment of transportation between the terminal facilities of the Pipeline and ports under the jurisdiction of the United States, and which is carrying TAPS oil.

§ 29.2 Creation of the Fund.

(a) The Trans-Alaska Pipeline Liability Fund (Fund) was created by the Act as a non-profit corporation to be administered by the holders of the Trans-Alaska Pipeline right-of-way under regulations prescribed by the Secretary. The vessel Owner and Operator are strictly liable for the first $14 million of claims for any one incident. The vessel Owner and Operator remain liable for claims over that amount whenever the damages involved were caused by the unseaworthiness of the vessel or by negligence and should the Fund pay any claims under those circumstances, the Fund retains the right of subrogation. The Fund's maximum liability for any one incident is the amount of the claims over $14 million but not to exceed $1.09 million.

(b) The Fund shall be subject to, and shall take all steps necessary to carry out the responsibilities under, the Act and these implementing regulations.

(c) The right to repeal, alter, or amend these regulations is expressly reserved.

§ 29.3 Fund administration.

(a) The Fund shall be administered by a Board of Trustees designated by the Permittees and the Secretary as provided in paragraph (b) of this section.

(b)(1) The Board of Trustees shall be comprised of one member designated by each Permittee and three members designated by the Secretary. At least one member designated by the Secretary shall be chosen from persons nominated by the Governor of the State of Alaska. Each member shall serve for a period of three years and may succeed himself or herself. Each member shall have the right to vote. If additional persons become holders of rights-of-way, each such additional Permittee shall have the right to designate a trustee, and if any holder of right-of-way sells the interest in such right-of-way, such holder's designated trustee shall resign from the Board. The Board shall elect by a majority vote a Chairman and a Secretary annually.

(2) Where any activity of the Fund creates a conflict of interest, or the appearance of a conflict of interest, on the part of any member of the Board of Trustees, the member involved shall excuse himself or herself from any consideration of such activity by the Board of Trustees.

(c) The Board of Trustees by a majority vote shall select an Administrator to direct the day-to-day operations of the Fund.

(d) The Board of Trustees shall hold meetings every six months, or more frequently when necessary to consider pressing matters, including pending claims under § 29.9.

(e)(1) Each Board Member and officer of the Fund now or hereafter serving as such, shall be indemnified by the Fund against any and all claims and liabilities to which he or she has or shall become subject by reason of serving or having served as such Board Member or officer, or by reason of any action alleged to have been taken, omitted, or neglected by him or her as such Board Member or officer; and the Fund shall reimburse each such person for all legal expenses reasonably incurred by him or her in connection with any such claim or liability: *Provided*, however, That no such person shall be indemnified against, or be reimbursed for any expenses incurred in connection with, any claim or liability arising out of his or her own willful misconduct or gross negligence.

(2) The amount paid to any officer or Board Member by way of indemnification shall not exceed his or her actual liabilities and actual, reasonable, and necessary expenses incurred in connection with the matter involved. Expenses incurred in defending a civil or criminal action, suit or proceeding may be paid by the Fund in advance of the final disposition of such action, suit, or proceeding as authorized by the Board in the specific case upon receipt of an undertaking by or on behalf of the Board Member or officer to repay such amount if it shall ultimately be determined that he or she is not entitled to be indemnified by the Fund as authorized herein.

(3) The indemnification provided by this section shall continue as to a person who has ceased to be a Board Member or officer and shall inure to the benefit of the heirs, executors, and administrators of such a person. The right of indemnification hereinabove provided for shall not be exclusive of any rights to which any Board Member or officer of the Fund may otherwise be entitled by law.

§ 29.4 General powers.

The Fund shall have such powers as may be necessary and appropriate for the exercise of the powers herein specifically and impliedly conferred upon the Fund and all such incidental powers as are customary in non-profit corporations generally, including but not limited to the following:

(a) By resolution of the Board of Trustees, the fund shall adopt a corporate seal.

(b) The Fund may sue and be sued in its corporate name and may employ counsel to represent it.

(c) The Fund shall be a resident of the State of Alaska with its principal place of business in Alaska, and the Board of Trustees shall establish a business office or offices as deemed necessary for the operation of the Fund.

(d) In any civil action for the recovery of damages resulting from an incident, the Fund shall waive personal jurisdiction upon being furnished with a copy of the summons and complaint in the action.

(e) The Board of Trustees of the Fund, by a majority of those present and voting, shall adopt and may amend and repeal by-laws governing the performance of its statutory duties.

(f) The Fund shall do all things necessary and proper in conducting its activities as Trustee including (1) receipt of fee collections pursuant to section 204(c)(4) of the Act; (2) payment of costs and expenses reasonably necessary to the administration of the Fund as well as costs required to satisfy claims against the Fund; (3) investment of all sums not needed for administration and the satisfaction of claims in income-producing securities as hereinafter

99-074 - 89 BEST AVAILABLE COPY

provided, and (4) seeking recovery of any monies to which it is entitled as subrogee under circumstances set forth in section 204(c)(8) of the Act.

(g) The Fund shall determine the character of and the necessity for its obligations and expenditures, and the manner in which they shall be incurred, allowed, and paid. The Board of Trustees shall establish an annual budget, subject to the approval of the Secretary.

(h) All costs and expenses reasonably necessary to the administration of the Fund, including costs and expenses incident to the termination, settlement, or payment of claims, are properly chargeable as expenses and payable out of fees or other income of the Fund.

§ 29.5 Officers and employees.

(a) The Administrator is the Chief Executive Officer of the Fund and is responsible for carrying out all executive and administrative functions as authorized by the Board of Trustees in accordance with the Act including the receipt and verification of fees collected from Owners of TAPS oil pursuant to section 29.6(a), the investment of Fund assets in securities according to guidelines approved by the Board of Trustees and consistent with these regulations, and the disbursement of such assets in payment of expenses and approved claims.

(b) The Fund may employ such other persons as may be necessary to carry out its functions.

§ 29.6 Financing, accounting, and audit.

(a)(1) The Operator of the Pipeline shall notify each Permittee within a reasonable time as to the date of the tanker loadings and the volumes of TAPS oil loaded. The Permittee will send an invoice for transportation charges for TAPS oil (which includes five cents per barrel for the Fund) to the Owner of the oil. The Permittee will receive the five cents per barrel fee from the Owner of the oil in accordance with the terms of its particular pipeline tariff, filed with the appropriate governmental agency, and shall transfer the fee on or before the next business day to a Fund bank account designated by the Administrator. Collection of fees shall cease at the end of the month following the month in which $100 million has been accumulated in the Fund from any source. Collection of fees shall be resumed when the accumulation falls below $100 million. The Administrator shall notify the Pipeline carriers by the fifteenth of the month if fees are to be collected during the following month.

(2) The value of the Fund shall be the current market value of the Fund on the day at the end of each month or other agreed upon accounting period.

(b) Costs of the administration shall be paid from the money received by the Fund, and all sums not needed for administration and the satisfaction of claims shall be invested in accordance with section 29.11. The interest on and the proceeds from the sale of any obligations held in the Fund shall be credited to and form a part of the Fund. Income from such securities shall be added to the principal of the Fund if not used for costs of administration or settlement of claims.

(c) At the end of each month that fees are payable under the Act, or other agreed upon accounting period, the Operator of the Pipeline shall provide the Fund with a statement of the respective volumes of crude oil transported by the Operator of the Pipeline and delivered to vessels, the amount of fees charged and collected, and the Owners of TAPS oil from whom such fees were or are due. The Administrator shall provide a copy of the statement to the Owners of the oil, and to the State of Alaska.

(d) The Fund shall undertake an annual accounting.

(e) The Fund shall be subject to an annual audit by the Comptroller General, in coordination with the Administrator and the Secretary. Authorized representatives of the Comptroller General and the Secretary shall have complete access, for purposes of the audit or otherwise, to all books, accounts, financial records, reports, files, and all other papers, things, or property belonging to or in use by the Fund and they shall be afforded full facilities for verifying among other things, transactions with the balances on securities held by depositories, fiscal agents, and custodians. A report of each audit made by the Comptroller General shall be submitted to the Congress.

§ 29.7 Imposition of strict liability.

(a) Notwithstanding the provisions of any other law, where a vessel is engaged in any segment of transportation between the terminal facilities of the Pipeline and ports under the jurisdiction of the United States, and is carrying TAPS oil, the Owner and Operator (jointly and severally), and the Fund established by section 204(c) of the Act, shall be strictly liable without regard to fault in accordance with that section for all damages, including clean-up costs, sustained by any person or entity, public or private, including residents of Canada, as a result of any discharge of TAPS oil from such vessel. Strict liability under this section shall cease when the TAPS oil has first been brought ashore at a port under the jurisdiction of the United States.

(b) Strict liability shall not be imposed under this part if the Owner or Operator of the vessel, or the Fund, can prove that the damages were caused by an act of war or by the negligence of the United States or other governmental agency. Strict liability shall not be imposed under the Act with respect to the claim of a damaged party if the Owner or Operator of the vessel, or the Fund, can prove that the damage was caused by the negligence of such damaged party.

(c)(1) Strict liability for all claims arising out of any one incident shall not exceed $100 million. The Owner and Operator of the vessel shall be jointly and severally liable for the first $14 million of the claims that meet the definition of damages as provided for in these regulations. The Fund shall be liable for the balance of the claims that meet the same definition up to $100 million. If the total of these claims exceeds $100 million, they shall be reduced proportionately. The unpaid portion of any claim may be asserted and adjudicated under other applicable Federal or State law.

(2) The Fund shall establish uniform procedures to determine whether claims from a TAPS oil spill might exceed $14 million and $100 million. These procedures shall provide that when a determination is made that claims may exceed $100 million, payment of claims may be withheld in full or in part for a twenty-four month period so that claims may be proportionately reduced prior to payment.

(d)(1) Each Owner or Operator of a vessel shall obtain from the Federal Maritime Commission a "Certificate of Financial Responsibility (Alaska Pipeline)" demonstrating compliance with the provisions of section 311(p) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1321(p)), and regulations promulgated pursuant to such act (33 CFR Part 131). Notwithstanding inconsistent language in such act, financial responsibility in the amount of $14 million for all such vessels must be established.

(2) The certificate obtained in accordance with this subsection shall be carried on board the vessel. No TAPS oil may be loaded on any vessel which has not been issued a valid certificate which is still in effect at the time of loading.

§ 29.8 Notification and advertisement.

(a) As soon as the person in charge of a vessel has knowledge of an incident in which the vessel is involved, he shall immediately notify the Owner or Operator and the National Response

Center, (800) 424-8802, of the incident. Notification under this section is in addition to any notification requirements under section 311(b)(5) of the Federal Water Pollution Control Act, as amended, and the regulations of the Coast Guard and the Environmental Protection Agency promulgated thereunder (33 CFR 153.203 and 40 CFR 110.10, respectively).

(b) Upon receiving notice of an incident, the National Response Center shall immediately notify the Fund.

(c)(1) At the time of a spill of TAPS oil, the vessel Owner and Operator shall consult with each other and identify a single contact person to both the Fund Administrator and the National Response Center as the official who is responsible for coordinating with the Fund the resolution of claims from a spill of TAPS oil. The National Response Center shall provide the identity of the contact person to appropriate officials of the Coast Guard.

(2) The Fund shall establish procedures for coordination of the handling of claims with the contact person.

(d) Pursuant to its procedures, the Fund shall ascertain if the spill may result in damage claims in excess of $14 million. If it concludes that that level may be reached, the Fund shall commence advertisement no later than 48 days from the date the Fund receives notice of the incident and shall continue advertising for a period of not less than thirty days.

(e) The advertisement must appear in one or more local newspapers of general circulation and the Fund shall establish procedures governing the format and the information to be included in the advertisement of an incident. All advertisements must include:

(1) The date and location of the incident;

(2) The name of the Owner or Operator;

(3) The name and address of the contact person or of the Fund Administrator to whom claims should be sent.

§ 29.9 Claims, settlement and adjudication.

(a)(1) Claims in accordance with this section may be submitted by any damaged party, his or her duly authorized agent, or his or her successor in interest.

(2) Claims submitted in accordance with this section must contain the following information:

(i) A detailed statement of the circumstances, if known, by which the claimed loss occurred.

(ii) A detailed listing of damages incurred, categorized according to the type of damage involved (§ 29.1(e)), and including a monetary claim for each type of damage listed.

(iii) Documentation of all monetary claims asserted.

(b) The contact person must provide copies of all claims filed with the vessel Owner or Operator to the Fund Administrator upon request of the Administrator. Once such claims are paid, the contact person shall notify the Fund and upon request of the Administrator supply any adjuster's reports.

(c) Prior to reaching $14 million in claims filed, the contact person shall notify the Fund whether the vessel Owner or Operator will assume responsibility to pay damages over the $14 million level.

(d)(1) In the event the vessel Owner or Operator refuses to pay claims over the $14 million level, the Fund shall determine if the $14 million in claims already filed meet the definition of damage as established by this section. The Fund shall pay the claims, or portion of claims, over $14 million, which have been determined to meet that definition.

(2) The Fund shall establish uniform procedures and standards for the appraisal and settlement of claims against the Fund, including but not limited to procedures for appraising claims made to the vessel Owner or Operator to determine when $14 million of claims meeting the definition of damages has been reached; procedures to determine whether claims over the $14 million level which it receives meet the definition of damages; and procedures for determining when the services of a private insurance and claims adjuster shall be used.

(e) In the event the vessel Owner or Operator refuses payment of any claims up to $14 million, the injured parties have recourse to the district court for the Federal district in which the spill occurred or the appropriate State court for the State in which the spill occurred. The Fund only becomes liable after $14 million in claims meeting the definition of damages have been paid or have been acknowledged as payable by the vessel Owner or Operator.

(f) The Fund may settle or compromise any claim presented to it.

(g) No claim may be presented, nor any action be commenced, for damages recoverable under this part unless that claim is presented to or that action is commenced against the vessel Owner or Operator, or their guarantor, or against the Fund, as to their respective liabilities, within two years from the date of discovery of the [illegible] by an incident, or of the date of the incident causing the damages, whichever is earlier.

(h)(1) The Board of Trustees, by a majority vote, shall decide to allow or deny claims or settlements presented to the Fund in accordance with this section. In its discretion the Board may delegate the authority to settle classes of claims to the Administrator.

(2)(i) Where a claim is presented to the Fund by or on behalf of any person having a close business, personal or governmental association with any member of the Board of Trustees, such as to create a conflict of interest or the appearance of such conflict of interest on the part of such member of the Board of Trustees, the member involved shall excuse himself or herself from any consideration of such claim.

(ii) Where a claim presented to the Fund has previously been presented to the Owner or Operator and such Owner or Operator has a close business, personal or governmental association with any member of the Board of Trustees, such as to create a conflict of interest or the appearance of a conflict of interest on the part of such member of the Board of Trustees, the member involved shall excuse himself or herself from any consideration of such claim.

(i) Any claimant aggrieved by the Fund's decision on a claim under this section may appeal the decision in the appropriate Federal district court.

§ 29.10 Subrogation.

If the Fund pays compensation to any claimant, the Fund shall be subrogated to all rights, claims, and causes of action which that claimant has to the extent permitted by law.

§ 29.11 Investment.

(a) The monies accumulated in the Fund shall be prudently invested in the following types of income-producing obligations having a high degree of reliability and security, or in such other obligations as the Secretary may approve:

(1) Fixed income securities issued by the United States or any of its agencies, at the same interest rates and terms available to private investors; and

(2) Fixed income securities or obligations issued by a corporation or issued or guaranteed by a State or local government or any political subdivision, agency or instrumentality thereof, provided such obligations have a rating by Standard and Poors, or Moody, of "A" or better, or an equivalent rating, or provided further that the security or obligation is of the same priority as

BEST AVAILABLE COPY

another security or obligation of the same issuer which has been rated "A" or better, and provided that the portfolio has an overall rating of "AA." *Provided,* however, That no securities or obligations of the permittees or their affiliates or of any investment advisor or custodian to the Fund, or their affiliates may be purchased or held by the Fund.

(3) Time certificates of deposit and commercial paper provided that the commercial paper has a rating of either "A1" or "P1" or both.

(b) No more than two percent of the total principal amount outstanding of fixed income obligations of a single issuer may be held by the Fund at any one time. *Provided,* however, That this restriction shall not apply to obligations of the United States or any of its agencies.

§ 29.12 Borrowing.

In the event the Fund is unable to satisfy a claim determined to be justified, or is in need of money with which to initiate the operation of the Fund, the Fund may borrow the money needed from any commercial credit source at the lowest available rate of interest. If the amount to be borrowed is $500,000 or less, the Administrator may arrange to pledge the credit of the Fund pursuant to a resolution of the Board of Trustees. If the proposed borrowing exceeds $500,000, the Administrator shall, prior to issuance of a note or other security pledging the credit of the Fund, secure the approval of the Secretary. No money may be borrowed from any of the Permittees or their affiliates.

§ 29.13 Termination.

Upon termination of operations of the Pipeline, the full disposition of all claims, and the expiration of time for the filing of claims against the Fund, all assets remaining in the Fund shall be placed in a temporary trust fund account within the State of Alaska. The terms of the trust arrangement shall be determined by the Secretary. During the next succeeding session of Congress, the Secretary shall request that Congress provide for final disposition of the Fund. If Congress at any time establishes a comprehensive oil pollution liability fund which supersedes or repeals the Fund, the Fund assets and any pending claims shall be disposed of as Congress or the Secretary shall direct.

§ 29.14 Information collection.

The information collection requirements contained in 43 CFR 29.9 have been approved by the Office of Management and Budget under 44 U.S.C. 3501 *et seq.* and assigned approval No. 1084-0076. The information being collected is the information required to substantiate claims submitted to the Fund. The information will be used to determine whether the claims are appropriate for payment by the Fund. Submission of this information is required of claimants before a claim can be considered.

Date: December 31, 1987

Joseph W. Gorrell,

Principal Deputy Assistant Secretary, Policy, Budget and Administration.

[FR Doc. 88-2491 Filed 2-4-88; 8:45 am]

BILLING CODE 4310-RG-M

LIABILITY

SEC. 204. (a)(1) Except when the holder of the pipeline right-of-way granted pursuant to this title can prove that damages in connection with or resulting from activities along or in the vicinity of the proposed trans-Alaskan pipeline right-of-way were caused by an act of war or negligence of the United States, other government entity, or the damaged party, such holder shall be strictly liable to all damaged parties, public or private, without regard to fault for such damages, and without regard to ownership of any affected lands, structures, fish, wildlife, or biotic or other natural resources relied upon by Alaska Natives, Native organizations, or others for subsistence or economic purposes. Claims for such injury or damages may be determined by arbitration or judicial proceedings.

(2) Liability under paragraph (1) of this subsection shall be limited to $50,000,000 for any one incident, and the holders of the right-of-way or permit shall be liable for any claim allowed in proportion to their ownership interest in the right-of-way or permit. Liability of such holders for damages in excess of $50,000,000 shall be in accord with ordinary rules of negligence.

(3) In any case where liability without fault is imposed pursuant to this subsection and the damages involved were caused by the negligence of a third party, the rules of subrogation shall apply in accordance with the law of the jurisdiction where the damage occurred.

(4) Upon order of the Secretary, the holder of a right-of-way or permit shall provide emergency subsistence and other aid to an affected Alaska Native, Native organization, or other person pending expeditious filing of, and determination of, a claim under this subsection.

(5) Where the State of Alaska is the holder of a right-of-way or permit under this title, the State shall not be subject to the provisions of subsection 204(a), but the holder of the permit or right-of-way for the trans-Alaska pipeline shall be subject to that subsection with respect to facilities constructed or activities conducted under rights-of-way or permits issued to the State to the extent that such holder engages in the construction, operation, maintenance, and termination of facilities, or in other activities under rights-of-way or permits issued to the State.

(b) If any area within or without the right-of-way or permit area granted under this title is polluted by any activities conducted by or on behalf of the holder to whom such right-of-way or permit was granted, and such pollution damages or threatens to damage aquatic life, wildlife, or public or private property, the control and total removal of the pollutant shall be at the expense of such holder, including any administrative and other costs incurred by the Secretary or any other Federal officer or agency. Upon failure of such holder to adequately control and remove such pollutant, the Secretary, in cooperation with other Federal, State, or local agencies, or in cooperation with such holder, or both, shall have the right to accomplish the control and removal at the expense of such holder.

(c)(1) Notwithstanding the provisions of any other law, if oil that has been transported through the trans-Alaska pipeline is loaded on a vessel at the terminal facilities of the pipeline, the owner and operator of the vessel (jointly and severally) and the Trans-Alaska Pipeline Liability Fund established by this subsection, shall be strictly liable without regard to fault in accordance with the provisions of this subsection for all damages, including clean-up costs, sustained by any person or entity, public or private, including residents of Canada, as the result of discharges of oil from such vessel.

(2) Strict liability shall not be imposed under this subsection if the owner or operator of the vessel, or the Fund, can prove that the damages were caused by an act of war or by the negligence of the United States or other governmental agency. Strict liability shall not be imposed under this subsection with respect to the claim of a damaged party if the owner or operator of the vessel, or the Fund, can prove that the damage was caused by the negligence of such party.

(3) Strict liability for all claims arising out of any one incident shall not exceed $100,000,000. The owner and operator of the vessel shall be jointly and severally liable for the first $14,000,000 of such claims that are allowed. Financial responsibility for $14,000,000 shall be demonstrated in accordance with the provisions of section 311(p) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1321(p)) before the oil is loaded. The Fund shall be liable for the balance of the claims that are allowed up to $100,000,000. If the total claims allowed exceed $100,000,000, they shall be reduced proportionately. The unpaid portion of any claim may be asserted and adjudicated under other applicable Federal or state law. 86 Stat. 862.

(4) The Trans-Alaska Pipeline Liability Fund is hereby established as a non-profit corporate entity that may sue and be sued in its own name. The Fund shall be administered by the holders of the trans-Alaska pipeline right-of-way under regulations prescribed by the Secretary. The Fund shall be subject to an annual audit by the Comptroller General, and a copy of the audit shall be submitted to the Congress. Trans-Alaska Pipeline Liability Fund. Establishment.

(5) The operator of the pipeline shall collect from the owner of the oil at the time it is loaded on the vessel a fee of five cents per barrel. The collection shall cease when $100,000,000 has been accumulated in the Fund, and it shall be resumed when the accumulation in the Fund falls below $100,000,000. Fee per barrel.

(6) The collections under paragraph (5) shall be delivered to the Fund. Costs of administration shall be paid from the money paid to the Fund, and all sums not needed for administration and the satisfaction of claims shall be invested prudently in income-producing securities approved by the Secretary. Income from such securities shall be added to the principal of the Fund.

(7) The provisions of this subsection shall apply only to vessels engaged in transportation between the terminal facilities of the pipeline and ports under the jurisdiction of the United States. Strict liability under this subsection shall cease when the oil has first been brought ashore at a port under the jurisdiction of the United States.

(8) In any case where liability without regard to fault is imposed pursuant to this subsection and the damages involved were caused by the unseaworthiness of the vessel or by negligence, the owner and operator of the vessel, and the Fund, as the case may be, shall be subrogated under applicable State and Federal laws to the rights under said laws of any person entitled to recovery hereunder. If any subrogee brings an action based on unseaworthiness of the vessel or negligence of its owner or operator, it may recover from any affiliate of the owner or operator, if the respective owner or operator fails to satisfy any claim by the subrogee allowed under this paragraph.

(9) This subsection shall not be interpreted to preempt the field of strict liability or to preclude any State from imposing additional requirements.

87 STAT. 598

(10) If the Fund is unable to satisfy a claim asserted and finally determined under this subsection, the Fund may borrow the money needed to satisfy the claim from any commercial credit source, at the lowest available rate of interest, subject to approval of the Secretary.

"Affiliate."

(11) For purposes of this subsection only, the term "affiliate" includes—

(A) Any person owned or effectively controlled by the vessel owner or operator; or

(B) Any person that effectively controls or has the power effectively to control the vessel owner or operator by—

(i) stock interest, or

(ii) representation on a board of directors or similar body, or

(iii) contract or other agreement with other stockholders, or

(iv) otherwise; or

(C) Any person which is under common ownership or control with the vessel owner or operator.

"Person."

(12) The term "person" means an individual, a corporation, a partnership, an association, a joint-stock company, a business trust, or an unincorporated organization.

TESTIMONY OF

PETE ISLEIB

MY NAME IS PETE ISLEIB. I AM A FISHERMAN FROM PRINCE WILLIAM SOUND, ALASKA. I HAVE FISHED PRINCE WILLIAM SOUND FOR OVER 25 YEARS. IN PRIOR YEARS I WOULD BE ENGAGED IN A COMMERICAL HERRING FISHERY WITHIN SIGHT OF THE GOOD FRIDAY OIL SPILL AT BLIGH REEF IN PRINCE WILLIAM SOUND.

AS A RESIDENT OF THE PRINCE WILLIAM SOUND PORT CITY OF CORDOVA, I HAVE SERVED ON THE LOCAL CITY COUNCIL, AND AS A CONCERNED FISHERMAN, I HAVE SERVED ON THE BOARD OF DIRECTORS OF THE CORDOVA DISTRICT FISHERMAN UNITED, A REGIONAL FISHERMAN'S ASSOCIATION, AND AS A CHARTER AND CURRENT BOARD MEMBER OF THE PRINCE WILLIAM SOUND AQUACULTURE CORPORATION, WHICH OPERATES THREE OF THE LARGEST SALMON HATCHERIES IN THE WORLD (ALL OF WHICH ARE IN PRINCE WILLIAM SOUND).

AS A BOARD MEMBER OF THE CDFU, MY HISTORY INCLUDES PARTICIPATION IN OUR OBJECTIONS TO AND COURT FIGHT AGAINST THE MARINE LEG OF THE TRANS ALASKA PIPELINE IN 1970-73. WE ALSO HOSTED A SYMPOSIUM ON OIL,WATER AND FISH IN EARLY APRIL 1977, IN WHICH WE DISCUSSED THE SEVERAL POSSIBILITIES OF PROBLEMS THE MARINE LEG OF THE

PIPELINE WOULD CREATE OVER TIME FOR THE PRINCE WILLIAM SOUND AREA AND ITS RESIDENTS WHO DEPEND ON THE HARVEST OF SEAFOOD FROM ITS PRISTINE WATERS FOR THEIR LIVELIHOOD.

I FEEL ILL AT EASE BEING HERE IN WASHINGTON DURING A SEASON I WOULD NORMALLY BE FISHING. HOWEVER, BECAUSE OF THE CANCELATION OF THE HERRING SEASON, WHICH COMPRISES ONE THIRD OF MY ANNUAL INCOME, I WAS UNFORTUNATELY ABLE TO COME TO WASHINGTON TO PARTICIPATE AS AN ADVISOR TO THE DEPARTMENT OF STATE IN INTERNATIONAL NEGOTIATIONS WITH JAPAN AND CANADA ON HIGH SEAS GILLNET FISHING.

THE GROUNDING OF THE EXXON VALDEZ AND THE RESULTING SPILL OF OVER 10 MILLION GALLONS OF CRUDE OIL AND LACK OF ANY MEANINGFULL ACTION TO CONTROL IT IS AS MUCH A BETRAYAL TO THE PEOPLE OF PRINCE WILLIAM SOUND WHO WERE TOLD TO TRUST THE DESIGN AND PREPARATION OF THE MARINE LEG OF THE TAPS LINE, AS IT IS AN INSULT TO THE ENVIRONMENT OF PRINCE WILLIAM SOUND AND CONTIGUOUS PACIFIC OCEAN. I SHOULDN'T LIMIT MY SCOPE TO MY FISHING GROUNDS, I GUESS, BECAUSE THE PEOPLE OF ALASKA AND THE REST OF AMERICA HAVE BEEN BETRAYED, AS WELL.

I AM ONE OF SOME 500 FISHERMAN USUALLY ENGAGED IN ONE OF FOUR HERRING FISHERIES IN THE SOUND DURING APRIL. HALF OF THE HERRING SPAWNING BEACHES HAVE BEEN COATED WITH OIL, WHICH CAUSES A LOSS OF THE REPRODUCTIVE SUCCESS OF THE HERRING. THAT MEANS WE CANNOT ONLY NOT CATCH HERRING THIS YEAR BUT THAT THERE WILL BE SIGNIFICANTLY REDUCED POPULATIONS OF HERRING IN FUTURE YEARS.

I ALSO OWN A SALMON PURSE SEINE VESSEL THAT HARVESTS SALMON FROM THE STREAMS AND HATCHERIES OF PRINCE WILLIAM SOUND. CURRRENTLY, SALMON FRY ARE BEGINNING TO ENTER PRINCE WILLIAM SOUND FROM HUNDREDS OF SPAWNING STREAMS AND FROM THE HATCHERIES IN THE AREA. AS MANY AS 650,000,000 FRY WILL BE RELEASED FROM THE HATCHERIES ALONE AND HUNDREDS OF MILLIONS WILL ESCAPE FROM THE STREAMS. WHEN THESE FRY REACH THE WATERS OF THE SOUND, THEY FEED IN THE UPPER ONE METER OF THE SOUND ON THE TEEMING ZOOPLANKTON THAT MAKES UP THE BASE OF THE FOOD CHAIN OF THE PROLIFIC SOUND. THOSE MICROORGANISMS ARE JUST NOW BEGINNING TO BLOOM. OBVIOUSLY, A GREAT DEAL OF THE NUTRITION FOR THE FRY WILL COME IN CONTACT WITH THE OIL AND BE ABSORBED IN THE FOOD CHAIN. FRY AND LARVAL STAGES OF ALL MARINE LIFE, INCLUDING OUR SALMON, ARE EXTREMELY SENSITIVE TO HYDROCARBONS, WITH MORTALITY OCCURING AT LEVELS ABOVE ONE PART PER MILLION OF OIL. OBVIOUSLY THERE IS SUBSTANTIAL RISK TO FUTURE GENERATIONS OF SALMON. WE ARE ALSO ASKING WHETHER WE WILL WE BE ABLE TO FISH FOR AND MARKET SALMON THIS YEAR, AS WELL?

I AM JUST ONE OF THOUSANDS OF INDIVIDUALS WHOSE LIVELIHOOD AND LIFE HAVE BEEN ALTERED BY THE WORST MARINE OIL SPILL IN AMERICA IN HISTORY. YOU HAVE SEEN MANY OTHERS ON TELEVISION AND READ ABOUT THEM IN THE PAPERS. WE HAVE SUBSTANTIAL LOSSES IN EVERY ASPECT OF OUR LIVES. WE WILL HAVE MUCH TO TELL ABOUT THIS INCIDENT IN THE DAYS AND WEEKS TO COME. I JUST WANT YOU TO KNOW NOW THAT FROM THE BEGINNING OF THE MORNING OF GOOD FRIDAY THE SPILL HAS BEEN, LITERALLY, AN UNMITIGATED DISASTER. THE OIL INDUSTRY WAS NOT READY TO RESPOND, REFUSED ASSISTANCE OFFERED EARLY BY THE FISHERMEN, WAS UNABLE TO DEPLOY ADEQUATE BOOM TO CONTAIN THE SPILL FROM THE RUPTURED TANKER, DID NOT GET ENOUGH EQUIPMENT AND PEOPLE INTO THE AREA FAST ENOUGH TO EITHER CONTAIN OR EFFECTIVELY CLEAN UP PORTIONS IMPACTED BY THE SPILL INITIALLY, IN SOME INSTANCES THWARTED OR COMPLICATED THE ABILITY OF FISHERMEN TO EMPLOY SELF HELP IN PROTECTING STREAMS AND HATCHERIES, JUST FOR STARTERS. THIS IS ONLY THE BEGINNING.

WE WANT YOU TO COME SEE THIS YOURSELVES. FIELD HEARINGS SHOULD BE HELD NOW IN CORDOVA AND VALDEZ. WE ALSO NEED TO KNOW NOW WHAT SPECIFIC STEPS HAVE ALREADY BEEN TAKEN TO ASSURE THIS DOES NOT HAPPEN AGAIN AND THAT THERE IS ADEQUATE EQUIPMENT FOR PROMPT CONTAINMENT AND CLEAN UP. WE WILL HAVE FOR YOU A LONG LIST OF ITEMS WE THINK SHOULD BE DONE TO ALTER THE POLICIES AND PRACTISES RELATED TO THE MARINE LEG. MANY OF THEM WE HAVE BEEN SAYING SINCE THE GO AHEAD WAS GIVEN FOR THE PIPELINE, MANY OF THEM HAVE NEVER BEEN DONE. BUT FIRST, WE NEED TO CONTINUE THE CLEAN UP AND DO WHAT WE CAN DO TO SALVAGE THE DISASTER IN THE SOUND.

Environmental Policy Institute
Friends of the Earth
Oceanic Society

218 D St., SE • Washington, DC 20003 • 202/544-2600 202/328-0098

STATEMENT BY CLIFTON E. CURTIS
EXECUTIVE DIRECTOR, THE OCEANIC SOCIETY
TO CONGRESSIONAL COMMITTEES
APRIL 6, 1989
WASHINGTON, D.C.

Mr. Chairman, my testimony is being submitted this morning on behalf of the 30,000 members of The Oceanic Society, and the 15,000 members and supporters of the Environmental Policy Institute and Friends of the Earth. These three national environmental groups recently merged to form the world's first global environmental advocacy organization, working with local citizens' and grassroots' groups on an array of environmental concerns around the world.

As the Executive Director of The Oceanic Society, one of my primary professional interests over the past 10 years has been to study and catalog information on the oceanic transport of oil, the causes and effects of oil spills, and the corporate and governmental operations relating to oil transport and calamities such as the recent Exxon Valdez oil spill.

Because this spill of well over 10 million gallons of crude oil occurred in such a pristine and environmentally-sensitive, semi-enclosed area as Prince William Sound, I am convinced that the Exxon Valdez spill is the most serious such accident in the history of oil transport -- more serious in its impacts than the two most notorious spills involving the Amoco Cadiz (1978) and the Torrey Canyon (1967), -- and certainly worse than the "worst-case scenario" envisioned by the Environmental Impact Statements prepared back in 1973 when the Congress permitted the Alaskan oil pipeline to be constructed from the North Slope down to the port town of Valdez, near where this environmental tragedy occurred.

CURRENT PERSPECTIVE

The tragic Alaskan oil spill now covering beaches, waters and wildlife in an area equal to the size of Rhode Island was President George Bush's second chance since he took office more than two months ago to start fulfilling his repeated campaign promises to protect the environment. It is now clear that Bush

is getting cold feet about his commitments. Not only has he slashed the federal budget for environmental protection by nearly 20 percent but he now denies that there is any connection between potential oil development in the pristine acreage of the Arctic National Wildlife Refuge and earlier oil development of the North Slope region which resulted in the devastation of the once-pristine Prince William Sound.

Bush's first chance came in February when he delivered his budget message to Congress -- a message which included bromides about stronger environmental protection but in reality more than $3.2 billion in budget cuts from the already-depleted Reagan Administration budget (a decrease of 18.2 percent). These cuts included about $400 million from federal pollution control funding -- although Bush owed his election in part to successful exploitation of environmental issues, including water pollution in the Boston Harbor.

The President's second opportunity to rally on behalf of the environment comes with the Exxon Valdez oil spill now covering more than 1,000 square miles of waters and shorelines. It is far worse than the "worst-case" scenario envisioned in the Environmental Impact Statements associated with the approval of the Alaskan pipeline in July, 1973 -- 11.3 million gallons compared to the "worst-case" fears of 6.6 million gallons -- indeed, it is one of the most extensive, most destructive and poorly-handled spills in world history. Yet the President refuses to acknowledge that new oil development within the Refuge only a few hundred miles east of Prudhoe Bay could result in further such spills with enormous environmental consequences.

On two separate occasions on nationally broadcast TV talk-shows April 2nd following his return from an inspection tour of the Prince William Sound area, William K. Reilly, EPA Administrator, also declined to link the calamitous events of late March with the potential consequences of oil development on the federal lands within the Alaskan National Wildlife Refuge. At the time, Reilly gave no indication that he would advise either the President or the Secretary of the Interior to reconsider their campaigns to secure Congressional approval for oil exploration and drilling within the environmentally-sensitive Refuge, though it appears he now is reconsidering that position.

In trying to justify the Bush Administration's environmental performance during its inaugural months, Reilly stressed that by recently backing-off from permits to allow oil and gas drilling off the coasts of California and Florida the federal government was "foregoing more than $1.5 billion in revenues" at a time of severe federal budget deficits. The EPA Administrator may unwittingly have spotlighted a fundamental flaw

in the federal land-leasing program itself: the strong financial incentive for the government to "sell-out" and permit environmentally-unsound development on lands which the public has entrusted it to preserve. The current FY 1990 budget anticipates a whopping $1.2 billion alone from revenues generated by oil development of the Alaskan National Wildlife Refuge.

ANATOMY OF A CALAMITY

While assigning blame for the causes of the Exxon Valdez oil spill and the pathetic failure of the oil containment and recovery efforts during the crucial early days is a fruitless expense of energy at a time when our work should instead be focused on cleanup and prevention of all future spills, there are valuable lessons to be learned from the logistical, technological and executive failings of Exxon, Alyeska and the U.S. Coast Guard -- including some of those documented by The Wall Street Journal in a lengthy front-page article published April 3rd and entitled "Out of Control: How Unpreparedness Turned the Alaska Spill into Ecological Debacle."

> Fact: "It took the companies (Exxon and the other corporate members of the Alyeska consortium) fully 35 hours to encircle the stricken tanker with barrier booms that were supposed to restrict the spill. By then the oil was floating miles from the ship. It took much longer to mount an air attack with the dispersants that were supposed to dissolve the oil. Both tactics were far too little, too late." The state-approved containment plan requires for complete encirclement within five hours, not 35.
>
> Fact: "The tanker's captain was intoxicated under Coast Guard rules nine hours after the accident. Exxon also admitted that it knew the captain had gone through an alcohol detoxification program, but still put him in command of its largest tanker." Yesterday, 12 days after the debacle began, Captain Joseph Hazelwood finally surrendered himself to authorities in New York.

A chronology of the first four days of the spill -- assembled from state and Coast Guard official reports and dozens of Wall Street Journal interviews with company spokesmen, fishermen and others -- sharply contradicts many of the oil companies' assertions:

- Not only was Alyeska's only containment barge stripped for repairs, but when it was finally loaded, it was with

equipment meant to take oil off the tanker -- rather than barrier booms to fight the spill. It had to be reloaded, taking hours. In its contingency plan, Alyeska is required to notify the state if a vital piece of equipment is taken out of service. A company official conceded it hadn't done so. On the day of the spill, a replacement barge for the older one lay 1,200 miles to the south in Seattle.

- Neither Alyeska nor Exxon had enough booms or dispersants. The oil companies weren't ready to test for dispersants for 18 hours, and they then did so by ineffectually tossing buckets of chemicals out the door of a helicopter.

- Both Alyeska and Exxon failed, despite pleas from fishermen, to mobilize squads of private fishing boats poised to rush to the scene, as is required by the official state-approved contingency plan for oil spills. "We got absolutely no response from Exxon for days," reports the spokeswoman for the local fishermen.

- Until 1981, Alyeska maintained an around-the-clock team assembled on location to respond instantly to a spill -- but the team was disbanded to cut costs. State officials allowed the move.

- By darkness on the second full day after the Exxon Valdez spill, Alyeska's equipment had recovered a pitiful 1,200 barrels of oil. Alyeska's contingency plan had projected that up to 50 percent of any major oil spill (for example, 200,000 barrels) could be recovered through skimming operations.

- Makeshift crews assembled by Exxon reported being assigned to boats with no apparent mission; members of one crew tell of arriving at the spill and finding nothing to do. They idled away the hours playing poker.

- One of the Coast Guard's main radio relay stations shut down because of an electronics problem; the identical problem had been cropping up for months, but the Coast Guard hadn't been able to get it fixed. Alyeska and Exxon also experienced radio problems, and fishermen had to be employed to relay messages physically between scattered cleanup vessels.

- At several crucial junctures, Exxon ran out of its supplies of the dispersant chemical used to break down the oil on the waters. On one occasion when its airplanes did have some dispersant, however, one plane strafed the deck of the Exxon Valdez, sliming the entire Coast Guard crew which had taken over the beleaguered ship.

INTENTIONAL
BLANK

- By Tuesday morning, March 28th, Exxon conceded that the oil spill into Prince William Sound was out of control.

TIDES OF DESTRUCTION

Primarily because of the location and timing of the Exxon Valdez oil spill, it ranks among the most calamitous of such accidents in the world. Prince William Sound is filled with pristine island chains and its coastal areas are flush with fish and fringed with rookeries of sensitive bird species. The spill occurred on the precipice of the month of April, normally the most important days for reproduction of herring and the seaward migration of juvenile salmon in Alaskan waters. Salmon hatcheries are likewise in jeopardy; the salmon run in Prince William Sound is one of the world's largest. Its waters are also fundamental migratory paths and playgrounds for whales, seals and otters.

Birds and otters have been the most visible first victims of the spill as they die from exposure when the natural insulation provided by their feathers or fur is rendered useless when soaked with oil. Some of the bird species threatened with great losses are already endangered. Other immediate threats include massive kills of fish and invertebrates (larval stages through adults), due to coating and asphyxiation, poisoning through direct contact or ingestion, and entanglement.

Also at risk are animals that feed on the dead and contaminated victims. For example, eagles feeding on oil-soaked birds will die of dehydration and starvation when their intestines become coated with oil, so that they are unable to absorb water or nutrients. Deer feeding on contaminated seaweed may starve if their intestinal microbes, which are responsible for digesting the plant material, are killed by the toxins.

Beyond the immediate health effects and mortalities on many species, there is certain to be continued degradation of the ecosystem before recovery occurs. Oil sinking into subtidal sediments will be time-releasing toxic hydrocarbons for years which will retard recovery rates of the biological community and are likely to have adverse mutagenic effects as well as impairing reproductive capabilities. The degradation of oil by bacteria will occur in low rates relative to warmer waters, so the number of years the effects linger may be significantly greater than seen ever before. The "chemo-reception" of marine animals which is often involved in reproduction and development may be severely

impaired by the competing chemical "signals" produced by the dissolved petroleum hydrocarbons.

Prince William Sound is an unusually rich ecological area. A variety of habitats, each with its own profusion of species, are threatened both by immediate and long-term effects. None are immune and all must be monitored if we at least are to learn something from this devastating environmental debacle.

REAGAN -- BUSH BUDGET CUTS

The budget for the Coast Guard's marine environmental protection responsibilities has been woefully inadequate in recent years. Under President Reagan the Coast Guard's Marine Environmental Protection Program, including Marine Environmental Response and Port Safety and Security was subjected to a 50 percent budget cut in 1980. Subsequently, funding has remained at approximately the same low level, constituting about 7.5 percent of the total Coast Guard operating budget. President Bush's 1990 budget offers no significant change in the situation. Paradoxically, these budget cuts have occurred at the same time the Coast Guard's marine environmental protection responsibilities have increased dramatically.

As a consequence, the program is understaffed and is unable to employ state-of-the-art equipment such as sophisticated navigational monitoring and warning systems in ports which handle oil and hazardous chemicals. Just last year, the Coast Guard cut five personnel from the Port of Valdez vessel traffic service (VTS) and has recently closed down the VTS in New Orleans and New York harbor. It is ironic that the U.S. Coast Guard cannot afford to purchase and maintain the most up-to-date equipment manufactured in this country, given that this same equipment is being installed in many foreign oil tanker ports. The result of these deficiencies has been tragically demonstrated in Prince William Sound. A potentially preventable accident occurred and the emergency response effort was slow, uncoordinated and totally inadequate.

Leaving aside the question of whether additional federal "strike teams" are needed -- and we believe they are -- the budget cuts also have put the East Coast of the U.S. at greater risk. In 1987, the Coast Guard shut down the Atlantic Strike Team in Elizabeth City, N.C. This strike team formerly had the responsibility to respond to oil spills in the Atlantic. There are currently two other strike teams (located in Mobile, AL, and San Francisco) which are part of the National Strike Force established under the provisions of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP, 40 CFR 300)

to respond to oil and other hazardous substance spills. Spills of hazardous substances on the East Coast are now the responsibility of the Gulf Strike Team located in Mobile. In our view, this raises serious questions as to the response capability of the Coast Guard in the Atlantic.

The Administration and Congress have not received or have failed to heed the message that the protection of the marine environment cannot be guaranteed in ports and coastal areas serving the oil industry if the Marine Environmental Protection Program of the Coast Guard continues to be grossly underfunded. The choices seem to be to reinstate adequate funding for the Coast Guard program, to reduce the number of ports allowed to handle oil and update those facilities, or to witness more serious oil spills with potentially tragic environmental consequences.

LEGISLATIVE PERSPECTIVE

In the past thirteen days, there has arisen a tremendous tide of outrage and indignation among men, women and children throughout this nation as they have learned of the enormity not only of the dimensions of this spill but of the unpreparedness, negligence and flawed decision-making which surrounded it during the crucial early days. These citizens will be watching closely to see how this Committee and others work independently, cooperatively and expeditiously in ensuring that new laws, regulations, procedures and meaningful funding are provided so that such a catastrophe can never again be inflicted upon our oceans, our marine life, our wildlife, our coastlands and our people.

The newly merged organization of the Environmental Policy Institute, Friends of the Earth and The Oceanic Society stands ready to assist this Committee, other Congressional Committees and the U.S. Department of Transportation which oversees the U.S. Coast Guard with our expertise in this area and our unique role in voicing the sentiments and opinions of local grassroots organizations representing fishermen and their families, Native Alaskans, environmentalists, landowners, recreationists and tourists who have strong interests in securing fair compensation from this catastrophic oil spill and making certain that future spills are precluded. Additionally, as a newly merged global advocacy organization for the environment, EPI/FOE/OS now has the capability to use the lessons being learned from this Alaskan tragedy for the benefit of citizens in other nations, and the marine environment around the globe.

Accordingly, we have assembled what we have termed six "Imperatives for Protection" which we wish to share with the Committee this morning for your consideration in responding to the Exxon Valdez tragedy and the need for remedial actions. They focus not only on the necessity of holding the oil industry and the government to the full letter and spirit of the commitments they made when they were persuading Americans to let them build the Alaskan pipeline 16 years ago -- but also on the undeniable linkage between environmental disaster in southern Alaska and even greater oil development in the North Slope as is being pushed by the Bush Administration in the Arctic National Wildlife Refuge. Our "Imperatives" also address the necessity for immediate research into the long-term ecological effects of catastrophic oil spills, improvements in liability and compensation laws, and technological as well as human improvements which must be made promptly before oil tankers can be operated safely in our bays, seas and oceans.

* * *

IMPERATIVES FOR PROTECTION

1) **HONOR THY WORD** -- The oil industry -- specifically Exxon and the Alyeska consortium -- must be made to fully honor the letter and spirit of the commitments they made to protect the environment in 1973 before the U.S. Congress and the American people allowed them to construct the Alaskan pipeline.

In the legislative history produced during Congressional hearings leading up to passage of the Trans-Alaskan Pipeline Authorization Act in the summer of 1973 the oil companies made various promises and pledges to secure and maintain the appropriate technology, equipment and personnel to ensure that no oil spill would ever occur -- and if one ever did, it would be immediately contained, terminated and recovered without significantly damaging the environment. Through their representatives in the United States Senate, the American people voiced scant confidence with these commitments even then, since the vote on the pipeline bill in the Senate ended up as a 49-to-49 tie which had to be broken by Spiro T. Agnew, then Vice President and President of the Senate (only three months before he was forced to resign his offices).

The language surrounding these commitments evokes much more of a general pledge to prevent oil-spill accidents and clean them up promptly and completely if, God forbid, one should ever happen, as opposed to specific letter-of-the-law wordings which precisely spell out the nature of the investments which Alyeska

and the government would make to maintain the vigils necessary, prevent all spills and be poised for prompt and effective action. Following are two of the relevant quotes from the 1973 commitments the oil industry made to the Congress:

- Sophisticated Navigational Equipment: Each tanker will be equipped with modern navigation systems and all tanker traffic in the Prince William Sound/Valdez Harbor will be monitored by a traffic control system similar in concept to airport control systems; and

- Contingency Plans: Newly developed oil spill booms and skimming equipment will be readily available to put contingency clean-up plans immediately into effect in the event of an oil spill.

Every American who has made an effort to keep updated on the events following the Exxon Valdez oil spill knows what a mockery the oil industry made of these commitments to the American people and the Alaskan environment.

2) **PROTECT THE REFUGE** -- There should be no exploration for oil or gas in the Arctic National Wildlife Refuge, as the Bush Administration has proposed. The tragic Exxon Valdez oil spill has documented once again that there can be no long-term development of oil without destruction to the environment. Besides, more oil from Alaska is the wrong answer to this nation's energy problems; the right answer is to reduce demand for oil through energy conservation, energy efficiency and alternative energy sources (such as solar).

Today there exists a tremendous incentive -- especially with the public eye focused on the staggering federal budget deficits -- for the federal government to increase its revenues by leasing or selling for exploitation lands which it owns. Indeed, as noted earlier the Bush Administration's FY 1990 budget already is counting on about $1.2 billion in revenues from the oil companies after allowing them to take oil out of the Arctic National Wildlife Refuge. This incentive is a malignant tumor in the body of federal budgetary operations and should be excised with all due dispatch.

In view of the ongoing need for energy conservation, fuel efficiency alone can have a tremendous impact on simultaneously reducing demand for oil and protecting the environment. It has been documented that the need for all the oil which the industry expects to withdraw from the Arctic National Wildlife Refuge each year would be obviated if the government had not relaxed its fuel-efficiency requirements on the auto industry two years ago

(requiring average fleet fuel efficiency of only 26 mpg instead of the 27.5 mpg which had been mandated earlier).

3) RESEARCH ON LONG-TERM ENVIRONMENTAL EFFECTS OF OIL SPILLS -- Neither government, the oil industry nor academia ever has made the proper investment for in-depth research into the long-term effects of oil spills on the waters, the ocean beds, the marine life and their food chains, the beaches and coastlines and others affected by such catastrophes. That investment must begin this year, starting with the Exxon Corporation.

With Exxon's financial support, it is crucial that the government authorize a comprehensive environmental study to begin as quickly as possible and to continue for several years, or at minimum until clear evidence is found that the ecosystem is recovering. Because both federal and state agencies as well as private industry and academic scientists must be involved in various aspects of the studies, it is highly advisable that an oversight effort be established. The multitude of studies that must be carried out should be carefully coordinated by a consortium of outstanding scientists knowledgeable about oil spills and their effects, while not immediately involved with any of the parties directly responsible for the oil spill follow-up.

While it is important to allow knowledgeable scientists to design the appropriate research, the program should meet the following objectives: (a) to examine the extent of initial contamination in the sediments, water column and biota and the resulting initial impacts on marine life; (b) to establish a network of stations and transect lines which would allow revisitation through time to look at long-term degradation and/or recovery of potentially damaged components of the ecosystem and would enable scientists to determine the fate and redistribution of oil contamination; and (c) to coordinate with the Antarctic environmental study so that both studies can be used together to evaluate the response to oil contamination and the comparative stability of cold water ecosystems relative to temperate and tropical ecosystems.

4) ENACT A COMPREHENSIVE LIABILITY AND COMPENSATION REGIME -- The Exxon Valdez spill is a grim reminder that existing laws covering both oil spill liability and compensation are archaic, fragmented and inadequate. Those laws contain deficient cleanup and damage remedies, result in taxpayer subsidies, and allow spillers to take advantage of defenses and technicalities at the expense of victims. The system needs to be revamped.

There is one specific federal law -- the Trans-Alaskan Pipeline Authorization Act (TAPAA) -- applicable to the spill. As we've all heard, absent negligence that law limits the spiller's liability to $14 million for cleanup and damages, while a complementary TAPAA fund will pay up to an additional $86 million more. From an environmental perspective, the law inappropriately limits "damages" to claims for economic and subsistence purposes, precluding broader natural resource damage claims by federal or state trustees.

In addition to TAPAA, the federal Clean Water Act contains a small taxpayer-generated fund that is being used to pay for U.S. Coast Guard and other federal agency cleanup efforts that are underway in combination with those of Aleyeska, the state and others. There's the possibility that the federal government will be able to recoup those CWA expenses from the spiller, but historically such recoveries have been minimal.

The Exxon Valdez spill is sending a message to decision makers in Congress and the new Administration. What our nation needs, and does not have, is a package of complementary national, state and international laws that will full compensate victims of oil spills, including damages to natural resources, other property and loss of income. At the same time, this package is needed to provide quick, efficient cleanup (whenever possible), and to internalize those costs within the oil industry and its transportation sector.

We look forward to assisting Members and staff in the House and Senate in enacting comprehensive liability and compensation legislation that will achieve the above goals during this 1st Session of the 101st Congress. We intend to examine both Chairman Jones' (H.R. 1465) and Senator Mitchell's (S. 686) recent bills in light of the recent spill, and to offer our strong support to that legislation which best protects people, property and the marine environment from the inevitable occurrence of oil spills.

5) **TECHNOLOGY IMPROVEMENTS FOR TANKER SAFETY** -- Improvements must be made to the "Vessel Traffic Service" in Prince William Sound and all the many other ports along U.S. coastlines where oil tankers operate. Improvements in tanker ship construction should be completed by the year 2000 and increased inspections of these ships by the U.S. Coast Guard should begin immediately.

a) The Vehicle Traffic Services (VTSs) in Prince William Sound and other oil shipping ports along U.S. coasts should be carefully reviewed to put in place state-of-the-art VTSs. Each of these must have radar surveillance capability and should be fully

automated, so that the VTS draws information on location of the vessel from shipboard transponders. It has been estimated that a fully automated VTS reduces the risk of groundings by about 50 percent. Powerful computerized radar systems are available that would sound an alarm when a vessel is at risk of grounding or collision. "Areas to be avoided" should be designated to further reduce the risk of groundings -- especially in areas of special environmental vulnerability such as Prince William Sound;

b) All U.S. oil tankers should be equipped with double bottoms by the year 2000. Double bottom construction will have significant impact on outflows due to groundings and collisions respectively. These measures should be adopted for all tankers calling at U.S. ports, beginning with the domestic fleet.

Historical data suggest that double bottom construction would prevent outflows in a much as 90 perecnt of tanker grounding incidents.[1] Double bottoms have been incorporated on many liquid cargo carriers, and are internationally required (under MARPOL Annex II) for vessels carrying other hazardous polluting substances (e.g., chemicals). Double bottoms protect the entire bottom of a ship. In addition, since at least one wing tank of a double bottom tanker would typically be needed for additional ballast water, that portion -- probably one-sixth of the ship's side -- would be protected from oil outflows from collisions.

As evidenced quite clearly by the Exxon Valdez incident, "protective location" of segregated ballast (PL/SBT) is no substitute for double bottoms. The protective location approach allows the distribution of protective space over only one portion of the cargo area. The formula used to derive percentage of space to be protected allows only a certain ship-specific percentage of the cargo area to be unprotected. In the case of the Valdez only 30% of the cargo area was protected. While PL/SBT may provide more protection in the event of a collision, double bottoms will provide greater protection in the event of groundings. Although historically incidences of grounding and collisions are approximately the same, more oil is lost through groundings. It has been reported that the majority of vessels

---

1 Card, James C., "Effectiveness of Double Bottoms in Preventing Oil Outflow from Tanker Bottom Damage Incidents," Marine Technology, January, 1975, pp. 60-64; OTA, Oil Transportation by Tankers, 1975, 54-57, esp. Tables IV-5 and IV-6; Keith and Porricelli, "An Analysis of Oil Outflow Due to Tanker Accidents"; McKenzie, "A Study of Tanker Total Losses 1964-1973", October 1974.

in the Trans-Alaska Pipeline trade lack either double bottoms or PL/SBT; and

c) Coast Guard inspection of Alaskan pipeline vessels should be increased. In April of 1988 the Coast Guard published the "Marine Structural Casualty Study," a report to the Marine Inspection Program Casualty Review Council. The study considered all casualties occuring between 1984 and 1986. The study found that 52 percent of the casualties concerned vessels in the Trans-Alaska Pipeline trade (TAP vessels). As a result of this finding, the Coast Guard recommended that TAP vessels and all vessels over 700 feet in length be given special review. In particular, the Coast Guard recommended that any request for dry dock extension of such a vessel be closely scrutinized and that the vessel be given a thorough structural inspection.

While in-water inspections occur once every year, dry dock inspections of such vessels occur twice every five years. Two years ago, the Coast Guard extended the time for inspections. Prior to that time, vessels were required to be dry docked every two years. Given the large percentage of structural problems found in TAP vessels, we believe these vessels should be held to the two-year dry dock inspection. The Coast Guard recognizes structural cracking difficulties with these vessels and all vessels over 700 feet in length. Such structural failures are associated with the use of high strength steels for which welding procedures have not been perfected.

We understand the Coast Guard intends to meet this month with the American Bureau of Shipping and shipowners to seek solutions to these problems. We urge the Coast Guard to promptly seek long-term solutions which will ensure the integrity of these vessels.

6) HUMAN IMPROVEMENTS: PREVENTIVE MEASURES AND SPILL RESPONSE

a) Preventive Measures -- It is generally recognized that human error is a significant cause of vessel casualties, and that improved training programs and personnel policies can diminish the number of vessel casualties. Indeed, human error most likely was a major factor in the Exxon Valdez incident. While human error can never be legislated away, we nonetheless suggest a number of improvements to current personnel policies and contingency plans in order to reduce the risk of human error:

i) Regulations concerning eligibility for masters license (46 CFR 10.201 (b)) should be strengthened to exclude anyone with a "driving while intoxicated" conviction record or a history of alcoholism. Current regulations

exclude only users or those addicted to "dangerous drugs." In addition, regulations concerning physical fitness requirements for a masters license (46 CFR 10.205) should be revised. The applicant should be required to present documentation from a physician that the applicant shows no physical signs of addiction to alcohol;

ii) Regulations concerning the term for a masters license (46 CFR 10.202 (b)) should be revised. Currently, such a license is valid for five years. Renewal of a license should be required more frequently -- every two or three years. Regulations concerning physical fitness requirements for renewal of a license (46 CFR 10.209) should be revised to require submission of results of physical exam, not simply certification of physical fitness;

iii) "Manning" requirements for vessels should be strengthened. The minimal safe manning levels specified in a vessel's certificate of inspection should ensure that in all cases the watch is shared by a number of individuals to provide a backup on decisions concerning navigation of the vessel. For example, it appears that the radar system on the Valdez was not used properly. If more than one individual were responsible for reading the radar such a mistake may have been avoided; and

iv) Better personnel standards should include more stringent pilot and crew retraining requirements and refresher courses -- and monitoring for alcohol and drug abuse on the job. Tanker safety also would be promoted by larger civil fines for infractions and by tougher criminal punishments, including lengthier jail sentences for acts of negligence;

b) Spill Response -- The totally inadequate response to the Exxon Valdez oil spill is a stark reminder that even the best spill response plans are worthless if not properly executed. This spill should send a message to policy makers and regulators that oil and other hazardous substance spill contingency plans should be put to the test on a regular basis.

The Alyeska Pipeline Company oil spill contingency plan is full of promises which were not kept. The plan states that the company's resources "are organized in a preplanned manner to ensure rapid and effective response to any oil spill emergency." It is not a surprise, however, that the company was not able to handle a spill of such magnitude when the basis for the contingency plan was a much smaller spill. The contingency plan assumed that an oil spill of 74,000 barrels would be the "maximum probable spill volume as determined by a study using historical

tanker oil spill data adapted for Prince William Sound." (The actual volume was 240,000 barrels). Further, the contingency plan was to be carried out by a full-time oil spill task force. The task force, however, was disbanded in 1981. In order to correct or eliminate these types of problems:

i) Oil and other hazardous spill contingency plans, which are required under the Clean Water Act (P.L. 92-500) and the Comprehensive Environmental Response, Compensation and Liability Act (P.L. 96-510), should be routinely tested by the government to determine response time, ability to deploy personnel, and working condition of necessary equipment. This is the case in the state of California, where the California Coastal Commission has the authority and does call surprise drills to test a company's ability to execute contingency plans; and

ii) Additionally, industry using the Port of Valdez and all other ports with heavy hazardous substance vessel traffic should be required to maintain a full-time emergency response team, such as is called for in the Alyeska contingency plan.

* * *

For your further background and assistance to the news media, EPI/FOE/OS has compiled and issued an earlier document on the Alaskan oil tragedy dated March 30th, 1989, and entitled "OIL SPILL CLEANUP -- AN EXXON OXYMORON" serving as an initial fact sheet for reporters and editors.

NATIONAL MARINE MANUFACTURERS ASSOCIATION

STATEMENT OF RON STONE, DIRECTOR
NMMA GOVERNMENT RELATIONS DEPARTMENT
ON COAST GUARD AUTHORIZATION BILL FOR FY 1990
HOUSE COAST GUARD AND NAVIGATION SUBCOMMITTEE
April 12, 1989

The National Marine Manufacturers Association, a national trade association representing more than 1600 manufacturers of recreational boats, marine engines, and associated equipment and services, takes issue with the Coast Guard Fiscal Year 1990 budget request.

1. We oppose withholding $15 million from federal assistance for state recreational boating safety programs, which is half the authorized level of funding for the states under the Wallop-Breaux Fund's Boat Safety Account. That money is the best and the wisest investment in boating safety today. It produces twice as much bang for the buck matched 50/50 by state funds for increased boating safety law enforcement, education and other programs which have had a dramatic, demonstrable effect in reducing serious boating accidents.

Let the states continue to do the job by authorizing full funding for more boating safety patrols, more free education classes and public service announcements, more marking of hazards to navigation, more enforcement of laws against boating while intoxicated, more search and rescue capability, more responsibility for permitting and patrolling races and regattas, and more public access sensitive to boating safety needs. You will help cut back on any real need for Coast Guard involvement in recreational boating safety. More importantly, you will help reduce federal government spending and in some small but exemplary way you will help to reduce the federal budget deficit.

1000 Thomas Jefferson St., N.W. · Suite #525
Washington, DC 20007 202/338-6662

2. We question whether the proposed budget is motivated by boating safety considerations. Does it make sense to set aside increasingly more for the Coast Guard when, as far as we can tell, the Coast Guard is doing progressively less for recreational boating safety? The Coast Guard's share of the Boating Safety Account is absorbed into its general operating expenses budget, and there is not accountability for how much is spent on recreational boating safety services nor for what kind of services.

It seems to us that the funding mechanism of the Boat Safety Account, no matter how you try to fix it to ensure full funding for legitimate boating safety services, is flawed. Year after year, there is a struggle to gain appropriations for the full level of authorized funding, even though all the funds originate in boating and are not in the least dependent on general revenues. The trouble is, anything spent out of the Boat Safety Account counts or is scored against the Transportation Department's overall budget ceiling. The question is, can anything be done to get the Boat Safety Account off-budget so that recreational boating safety programs, which boaters are fully prepared to underwrite out of their own money, are not penalized by the Transportation Department's budget ceiling?

3. We are opposed to the proposed user fee of $25 per recreational boat operated on navigable waters for alleged Coast Guard services. This Subcommittee has rightly concluded time and again that user fees in this context are a tax. This is nothing new. What is new is that the Administration has pledged no new taxes. Boaters are therefore justified in protesting that it is patently unfair to tax them more in the guise of user fees at the same time OMB would withhold a substantial portion of user fees they are already paying in the form of motorboat fuel tax.

CITY OF CORDOVA

APRIL 5, 1989

STATEMENT OF CITY MANAGER DONALD L. MOORE OF CORDOVA, ALASKA

The people of Cordova, Alaska are privileged to live and work in one of the two most beautiful places on Earth--the formerly pristine Prince William Sound. As the world now knows, on March 24, 1989, the fully loaded tanker Exxon Valdez hit a well-marked reef near Bligh Island and spewed 10.5 million gallons of crude oil into the Sound. We are now experiencing a catastrophe of unprecedented impact on our environment, our economy and our way of life. Most unfortunately, the impact is worse than it needs to be because we trusted those who profess to know how to triage their own negligence.

In the early phase of the spill we in Cordova expected Exxon to mobilize to clean up the spill and begin assisting Cordova and other Sound communities with recovery efforts.

The truth is that the people of Cordova reached into their own treasury and began cleaning up the spill and protecting uncontaminated areas of the Sound while Exxon helped its out-of-town experts react. It is not a joke that the inevitable souvenir "T-shirts" were deployed before the containment boom was around the Exxon Valdez. In our view, Exxon has mustered only a fraction of its available resources to clean up the spill.

The City of Cordova and the two villages in the Sound are totally dependent upon commercial and subsistence fishing for our existence.

Cordova's annual operating budget depends upon direct

602 Railroad Avenue P.O. Box 1210 Cordova, Alaska 99574 Telephone (907) 424-6200 Fax (907) 424-6000

program revenues from commercial fishing for 1/3 to 1/2 of its operating revenue. Indirectly, the entire city economy is supported by fishing. In 1987, Cordova, a town of 3000 persons, was the ninth largest fishing port, by value, in the United States. We have no pipeline terminal or tour ship industry to offset any loss of our basic industry.

On April 3, 1989, the Alaska Department of Fish and Game announced that our herring fishing days were over. The impact of the spill on the salmon fishery is uncertain.

The Exxon Valdez disaster threatens a number of public/private economic development projects for Cordova such as our dock/gurry line, fish processor construction, harbor improvements and other public works projects, such as bonding for our elementary school construction.

We also greatly fear the socio-economic displacements that will afflict our community as a result of this tragedy. The loss of jobs, the loss of a way of life and all the attendant expectations of perhaps a generation of Cordovans are at risk. The people are afraid and they are frustrated. I will assume, for now, that Exxon will be driven by fundamental fairness to honor its pronouncement to "make us whole."

I appeal to the world to watch.

I referred to Prince William Sound as one of the <u>two</u> most beautiful places on Earth. I leave it to each of you to individually decide what the other one is. We all have a special Shangri-La in our hearts and minds. Think of yours when you contemplate what has happened to ours.

L. G. RAWL
Chairman of the Board

May 12, 1989

The Honorable Dennis M. Hertel
218 Cannon Building
Washington, D.C. 20515

Dear Mr. Hertel:

I am responding to your question during the House Coast Guard and Navigation Subcommittee hearing on April 6, 1989 regarding Exxon's spending on environmental conservation and, specifically, on combatting oil spills.

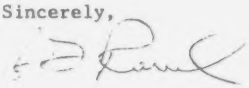
Since the additional emphasis and concentration on current environmental efforts beginning about 1970, Exxon has spent over 15 billion dollars on environmental conservation (about 1 billion dollars per year since 1977). Of this total, about $5.5 billion has been for the prevention, control, abatement and elimination of direct releases of oil into the water environment (about $0.4 billion per year since 1977) with over $1 billion for oil spill protection alone.

We have devoted considerable resources for oil spill preparedness at Exxon facilities. Company locations have site-specific contingency plans, equipment and organizations, either internally or via contracts, to respond to oil spills. To supplement local resources, Exxon maintains interfunctional oil response teams and is a member of industry oil spill cooperatives in areas where we have business interests. Worldwide, Exxon Corporation has over 1,500 trained oil spill response personnel and environmental specialists. These individuals are trained on site, through oil spill cooperatives in the U.S. and around the world and by Texas A&M University's oil spill control school.

Exxon has conducted oil spill and related environmental response research since the 1970's. Overall, we have directly supported efforts totaling over 200 man-years (equivalent to 60 million dollars) of research on oil spills including fate and effects, clean-up response and dispersants development. We are currently undertaking a review of areas where additional research money might be invested effectively in this field using, among other information, the data base and experience from the Alaska oil spill. In addition, we have supported related research efforts through the American Petroleum Institute (API). This work has helped produce the current generation of oil spill related technology and state of knowledge about oil in the marine environment. Exxon through the API has recently committed to share the funding of a Department of Interior program on the next generation of oil spill technology research. Additionally, Exxon and other companies are currently involved in an API sponsored task force assessing potentially fruitful areas for new/additional research initiatives.

Please let us know if we can be of further assistance.

Sincerely,



STATEMENT OF JIM MAKRIS, DIRECTOR
CHEMICAL EMERGENCY PREPAREDNESS AND PREVENTION OFFICE
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE HOUSE MERCHANT MARINE AND FISHERIES COMMITTEE

APRIL 6, 1989

Mr. Chairman and members of the Subcommittee, I am Jim Makris, Director of the Chemical Emergency Preparedness and Prevention Office in the Office of Solid Waste and Emergency Response at the U.S. Environmental Protection Agency (EPA). I am also the Chair of the National Response Team (NRT) and the EPA National Incident Coordination Team (NICT). The NRT is composed of fourteen Federal agencies charged with the coordination of oil and hazardous materials planning and response efforts at the national level. The NICT is an internal EPA group with senior level representatives from all Headquarters and Regional offices to coordinate Agency response actions and communication during extraordinary emergency situations of national or international significance.

When I travelled to Alaska with Administrator Reilly, Secretary Skinner and Commandant Yost early last week, I witnessed first hand the devastation this area is experiencing. This spill, of over 10 million gallons of oil in one of the country's most pristine environments, is the worst in U.S. history. It has spread over more than 1,000 sq. miles and is impacting land and marine wildlife and birds, as well as the livelihood of thousands of Alaskan citizens and the quality of

the environment in Prince William Sound. It is not certain how long it will take for this area to recover from this devastating spill. Given the serious implications of this incident for the environment, I appreciate this opportunity to discuss EPA's activities and concerns.

As I am sure you are aware, with regard to this tragic incident, decisions were made that lightering the oil from the tanker and then removing the tanker from Prince William Sound, booming sensitive areas and finally, undertaking to cleanup the environment and rescue affected wildlife would be the priorities for response. EPA supports these efforts and will continue to provide any necessary assistance in the short-term or long-term to mitigate adverse effects and to help prevent such accidents from occurring again.

NRT ROLE

In March, 1967, the Torrey Canyon ran aground spilling over 22 million gallons of oil that eventually washed ashore on English and French beaches causing massive environmental and economic damage. In the wake of that disaster, President Johnson directed the Department of the Interior to take lead responsibility in completing a multi-agency contingency plan for responding to such emergencies. From that effort, the National Multiagency Oil and Hazardous Materials Contingency Plan (NCP)

was developed in 1968 and established the Federal structure and responsibility for responding to oil spills and releases of hazardous substances. It was revised in 1970 to create the first NRT and in 1971 the EPA became the chair and Coast Guard remained as vice-chair. In 1980, the responsibilities of the NRT were expanded to include actions under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). Since its establishment, the NRT has met to consider numerous major oil and hazardous materials spills and has provided recommendations for improvements in Federal preparedness and response capabilities. For example, the NRT actively assisted in the St. Lawrence River Spill, the Campeche (IXTOC) Incident and the Schuylkill River Spill. It meets monthly to coordinate Federal preparedness and response policies and programs to ensure an adequate Federal capability to address such incidents as the Alaskan oil spill. It is the responsibility of the NRT to ensure that there is only one person, the On-Scene Coordinator (OSC), making decisions regarding response actions.

Since the Exxon Valdez incident on Friday, March 24, 1989, the NRT has convened three times. The first meeting occurred on Monday, March 27, primarily for an informational briefing on the incident and coordination of Federal actions, and the decision was made to activate the NRT. At the second meeting on March 30, Captain Rick Larrabee of the Coast Guard and Vice-Chair of the NRT and I provided a first hand report from our visit on-scene at

the incident in Alaska. Discussion centered on Federal coordination of response activities to the oil spill and provision of Federal support to the Coast Guard OSC. The third meeting focused on the President's charge to the NRT to prepare a report on the preparedness for, response to, and lessons learned from this incident (attached is the letter charging the NRT with this task). The report is to be submitted to the President within thirty days.

The NRT's Report will:

-- provide a full description of the incident,
-- address the status of preparedness for the incident,
-- assess the response actions taken,
-- provide a description of preliminary effects,
-- identify follow-up actions needed (including supplemental reports), and
-- discuss lessons learned.

Both near and long term implications of this oil spill will be addressed. A major focus will be on how we can improve preparedness and response for such incidents, including the state of the art and availability of technology and equipment for responding to oil spills. Economic and energy impacts will also be addressed as appropriate. It is clear that we have not, in either the public or private sector, taken steps to improve the

technology during the last decade. This was made evident during an oil spill conference in San Antonio earlier this year.

FEDERAL RESPONSE

The Clean Water Act provides Federal authority for response to oil spills. This authority covers discharges of oil into or within the coastal zone and inland navigable waters, including adjoining shorelines.

The Clean Water Act also provides for:

-- a notification mechanism for spills through the National Response Center (funded by DOT and EPA and operated by the Coast Guard);
-- liability of the responsible party for the cleanup or the Federal costs of cleanup; and
-- establishment of a revolving fund (311(k) Fund) for paying the costs of Federal cleanup actions.

The key Federal efforts, of course are in the field, on the scene. In the event of an oil spill or other hazardous materials releases under the NCP, various Federal agencies are called upon to provide assistance. Depending on the location of an oil spill, either an EPA or Coast Guard employee assumes the role of OSC. EPA's jurisdiction is over navigable waters above the tidal zone. The Coast Guard has jurisdiction for the coastal

zone and tidal waters (the Coast Guard also has jurisdiction for the Great Lakes and certain major rivers and ports such as the Mississippi River and the Port of St. Louis). The OSC is responsible for monitoring the cleanup (as in the case of the Exxon Valdez incident) or actually conducting the response action, where the responsible party is not capable or is not performing adequately, or the incident is beyond the capability of State or local resources. The OSC has complete Federal responsibility for on-scene actions to prevent, contain, assure cleanup of, or otherwise mitigate spills of oil or hazardous substances. An OSC's authority in oil spills includes the ability to access the 311(k) Fund (established under Section 311(k) of the Clean Water Act (CWA)) and to make any or all decisions necessary to protect public health and the environment.

The NCP establishes two main support mechanisms for the OSC. First, the Regional Response Team (RRT), which consists of Federal and State agencies which are immediately involved in or affected by the spill, provides advice and assistance on cleanup operations. Among other things, this may include coordinating with State and local agencies, assisting in establishing response priorities, providing scientific and technical expertise and giving advice on how and when to use dispersants. Secondly, the NRT, with interests and expertise in various aspects of emergency response to pollution incidents, can help to coordinate the overall supply of equipment, personnel and other national level

support which may be needed for a response. There are several special teams available to assist the OSC in responding to an incident, such as the Coast Guard's National Strike Force and Public Information Assist Team, EPA's Environmental Response Team (ERT), and the National Oceanic and Atmospheric Administration's Scientific Support Coordinators. As a result of strong coordination in the field and full cooperation of all appropriate departments and agencies, the NRT has not been required to provide direct assistance in this particular incident. It has, however, dealt with the public information processes.

EPA'S ROLE

Because the Exxon Valdez incident occurred in coastal waters, the Coast Guard has the Federal lead on response oversight and is the Federal agency designating the OSC. EPA is in a supporting role to the OSC. EPA Region X, through the RRT, is providing direct logistical and technical support to the Coast Guard OSC. There are three Region X technical personnel on-scene. They are involved in response oversight, environmental impacts assistance and shoreline protection. EPA's ERT has been activated. Three ERT staff are on the scene providing support to the OSC and the Alaska State Department of Conservation. Their capabilities include multi-media sampling and analysis, hazard evaluation, environmental assessment and cleanup techniques and

personnel will be performing these functions, as needed. Thus far, they have conducted overflights of the area to visually assess the situation and have made site visits to areas impacted by the spill to provide assistance to the Trustee Agencies in studying environmental impacts. They are also providing advice regarding shoreline cleanup and fate and transport of the oil in the marine environment.

Within the Agency, we have activated the NICT which serves as a focal point for overall Agency coordination efforts during emergency events that have national or international implications. It brings together a multi-program team to deal with broad issues during extraordinary emergency situations to support Administrator Reilly and the overall response. The NICT was spawned by events such as the release of methyl isocyanate in Bhopal, India and the radiation release at Chernobyl. The Incident Alternate Chair for this event is Tudor Davies, from EPA's Office of Water. The NICT has met three times and is helping to organize EPA's contribution to the response. It will continue to coordinate EPA's activities throughout this response.

CONCLUSION

A massive oil spill has taken place, causing significant adverse environmental and economic impacts to the citizens of Alaska and to the natural resources of the United States. The

responsible party, Exxon, has assumed the lead for cleaning up the spill and dealing with the environmental and economic damage. The Coast Guard is responsible for ensuring that the cleanup activities are adequate to the task. Many agencies of the Federal government, including EPA, are supporting the Coast Guard effort. EPA has marshalled its various resources to help, to the best of its ability, minimize the repercussions for the environment. This task will not be quickly accomplished, but EPA is committed to staying the course until the job is done. Finally, we will be full participants in the report to the President on how the preparedness for and response to these incidents might be improved in the future.

United States Department of Transportation
United States Environmental Protection Agency

April 4, 1989

Mr. Jim Makris, Chair
National Response Team
Environmental Protection Agency
401 M Street, SW
Washington, DC 20460

Dear Mr. Makris:

At our meeting with the President on the Valdez Oil Spill, we were directed to provide a report on the preparedness for, response to, and lessons learned concerning this incident within thirty days. Accordingly, we are charging the National Response Team (NRT) with the responsibility for preparing this report for submission to the President. As the NRT Chair, you are to lead the effort, coordinating the full NRT membership. As lead agency in this incident, the U.S. Coast Guard will work with the NRT to continue to coordinate Federal Agency actions in support of the response.

Based on our meeting with the President, and by copy of this letter, we are requesting that all NRT member Department Secretaries and Agency Heads make available whatever resources are needed through their respective NRT representatives to assist in the preparation of this report. Also, all Departments and Agencies are requested to continue to make available any needed resources to assist in the response and cleanup efforts and to coordinate all actions through the U.S. Coast Guard On-Scene Coordinator.

The NRT's Report should:

-- provide a full description of the incident,
-- address the status of preparedness for the incident,
-- assess the response actions taken,
-- provide a description of preliminary effects,
-- identify follow-up actions needed (including supplemental reports), and
-- discuss lessons learned.

Both near and long term implications should be addressed. A major focus must be on how we can improve preparedness and response for such incidents, including the state of the art and

availability of technology and equipment for responding to oil spills. Economic and energy impacts should be addressed as appropriate. Please prepare an outline of the report with Department/Agency assignments, resources needed and a schedule for completing the report within three working days.

The resources of the Department of Transportation and the Environmental Protection Agency are available to you to complete this task. Please keep us informed of progress made and major issues and let us know if additional assistance or action is required. We wish you well and look forward to receiving your report.

Samuel K. Skinner
Secretary of Transportation

William K. Reilly
Administrator
Environmental Protection Agency

cc: Secretary of Agriculture
Secretary of Commerce
Secretary of Defense
Secretary of Energy
Secretary of Health and Human Services
Secretary of the Interior
The Attorney General
Secretary of Labor
Secretary of State
Director, Federal Emergency Management Agency
Chairman, Nuclear Regulatory Commission
Commandant, U.S. Coast Guard
Administrator, National Oceanic and Atmospheric Administration
Assistant Secretary for Labor on Occupational Safety and Health
Administrator, Agency for Toxic Substances and Disease Registry
NRT Representatives

EXXON COMPANY, U.S.A.
POST OFFICE BOX 2180 • HOUSTON, TEXAS 77252-2180

W. D. STEVENS
PRESIDENT

May 12, 1989

MAY 31 1989

Mr. M. J. Tauzin
U. S. House of Representatives
Longworth House Office Building
Washington, D.C. 20515

Dear Congressman Tauzin:

I am responding to your letter of April 25 to Lawrence Rawl regarding the General Accounting Office investigation of the Exxon Valdez oil spill. This is to advise you that we will be pleased to cooperate with the GAO investigation. Mr. C. K. Roberts (telephone 713/656-2966) has been designated as a contact for the investigators. He will arrange interviews with company personnel as required.

Sincerely,

WDS:lb

c: Ms. C. M. Wilkinson

CHRONOLOGY

OF

EXXON'S RESPONSE TO THE EXXON VALDEZ INCIDENT

CONTENTS

SECTION	PAGE
Introduction, Overview, and Summary	1
Exxon Response and Initial Mobilization	5
Buildup of Personnel and Equipment; Deployment of Booms and Skimmers; and Oil Recovered from the Water	13
Attachment 1 - Daily Personnel Count - Valdez Operations	16
Attachment 2 - Summary of Equipment Delivered by Air Freight	17
Attachment 3 - Equipment Deployed	18
EXXON VALDEZ Lightering and Salvage	19
Dispersants and Burning	30
Map 1 - Zone Designations	39
Map 2 - Progression of Spill Leading Edge	40
Attachment 1 - Dispersant Availability and Effectiveness	41
Environmental Response	42
Attachment 1 - Exxon Environmental Studies	52
Attachment 2 - Manpower Buildup on Environmental Response Activities	56
Appendix A - Names Referenced in Chronology	57

CHRONOLOGY
OF
EXXON'S RESPONSE TO THE EXXON VALDEZ INCIDENT

INTRODUCTION

This chronology is organized into the following sections:

(1) Introduction, Overview, and Summary;

(2) Exxon Response and Initial Mobilization (March 24, 1989);

(3) Buildup of Personnel and Equipment; Deployment of Booms and Skimmers; and Oil Recovered from the Water (March 24-April 12, 1989);

(4) EXXON VALDEZ Lightering and Salvage (March 24-April 5, 1989);

(5) Dispersants and Burning (March 24-March 29, 1989); and

(6) Environmental Response (March 24-May 20, 1989).

OVERVIEW AND SUMMARY

Exxon Response and Initial Mobilization

Immediately upon learning about the spill, Exxon Shipping Company's management moved rapidly to assemble people, equipment, and materials; to disperse or remove the spilled oil; to lighter the approximately one million barrels of oil remaining on the vessel; and to protect the most sensitive areas of Prince William Sound. Exxon's key Response Team members were in the air the morning of the spill and were in Valdez within 18 hours of vessel grounding. Dozens more trained people and tons of supplies began arriving in Alaska that afternoon and continued arriving in the days thereafter. See Section titled, "Exxon Response and Initial Mobilization."

Buildup of Personnel and Equipment; Deployment of Booms and Skimmers; and Oil Recovered from the Water

The effort begun by Exxon in the first hours after the spill grew rapidly over succeeding days and constitutes what is probably the largest buildup of people, equipment, and materials ever assembled to combat an oil spill. The number of Exxon employees, contract personnel, and contract fishermen grew from 176 on March 24 to 1,300 by April 12. Also by April 12, over 1,800 tons of equipment had been delivered by air; and 210 vessels, 238,000 feet of containment boom, and 41 skimmers were deployed. These numbers have continued to grow as operations have moved into the shoreline cleanup phase. Currently over 8,000 people are involved in the operation.

In the days immediately following the spill, Exxon sought the help of local fishermen and government officials to protect the most environmentally sensitive areas of Prince William Sound. With the assistance of fishermen, key fish hatcheries were successfully protected from the oil spill.

Skimming operations were initially conducted on the oil spill south of the EXXON VALDEZ. Following gale force winds Sunday night and early Monday, March 26 and 27, skimmers were directed to the north end of Knight Island. Skimmers were used defensively at Sawmill Bay and were subsequently re-deployed to Point Hogan, Snug Harbor, and other locations as the free floating oil moved into the Gulf of Alaska.

By April 12, about 20,000 barrels of oil had been recovered from the water. Additional oil has been recovered since then, and the total is currently estimated to be about 52,000 barrels. See Section titled, "Buildup of Personnel and Equipment; Deployment of Booms and Skimmers; and Oil Recovered from the Water."

EXXON VALDEZ Lightering and Salvage

With the Coast Guard's active involvement, Exxon's Response Team had to deal with the major challenges of removing the approximately one million barrels of crude oil that remained on the EXXON VALDEZ while preventing the vessel from slipping from its precarious position on a rocky ledge, capsizing, and spilling the remaining crude oil into the Sound.

Among the difficulties Exxon encountered were assessing the damage to the vessel and determining how it was positioned on the ledge; ascertaining the depth of the water alongside the vessel in order to safely position the lightering vessels so that they would not become grounded as they received cargo; obtaining portable pumps to replace the cargo handling system on the EXXON VALDEZ; and weathering gale force winds (Sunday night and early Monday, March 26 and 27), which caused the vessel to pivot to a new resting position. By Tuesday, April 4, Exxon safely completed the transfer of crude oil to three Exxon tankers.

Meanwhile, salvage experts developed a plan to refloat the vessel taking into account the underwater damage to approximately 50% of the vessel's bottom and the need to take on sea water to displace the removed oil to maintain the vessel's balance. Deck openings were sealed and compressed air was pumped into the tanks to increase buoyancy. The vessel was successfully refloated shortly before high tide on April 5, 1989. See Section titled, "EXXON VALDEZ Lightering and Salvage."

Dispersants and Burning

Alyeska's approved Oil Spill Contingency Plan for Prince William Sound considered the possibility of a 200,000 barrel spill in the Sound--about the same size and in the same vicinity as the

EXXON VALDEZ oil spill. The Plan explicitly stated that such a spill could not be fully contained, large volumes of oil would reach the shore, and a significant shoreline cleanup effort would be required.

The Plan emphasized that the early use of dispersants and open burning were the most effective immediate steps that could be taken to mitigate environmental impacts. In the words of the Plan:

> In reviewing the aspects of this size spill it becomes very apparent how important it is to have dispersants approved so that they can be used very effectively to prevent the continuing input of oil into the small bays and shorelines in Prince William Sound. Burning also has to be looked at as a very good alternative to the cleanup in Prince William Sound on the various inlets and bays in which oil may accumulate.

The Coast Guard did not authorize Exxon to use dispersants, other than for tests, until 1845 hours on the third day after the spill (Sunday evening, March 26). Exxon also did not receive permission to use open burning, other than for tests, until mid-afternoon of the same day. Exxon is confident that had it obtained prompt permission to use dispersants and open burning. the environmental damage from the spill would have been signif[illegible]ntly mitigated. See Section titled, "Dispersants and Burning.

Environmental Response

While Exxon tackled the tasks of removing oil from the EXXON VALDEZ and from the water, Exxon also moved to assess and deal with the environmental effects of this spill. As part of the initial response, Exxon assembled a group of environmental experts to provide advice to its response team on the best ways to go about cleanup to mitigate damage to the environment. This team, working with federal and state personnel, moved quickly to identify sensitive areas for protection and assess biological and ecological impacts of the spill on water quality, sediment, and marine life. Samples were being taken even before the oil began to spread from the original spill site.

Within the first three days, treatment centers were set up for oiled birds and otters in Valdez, manned by experts Exxon brought in from California wildlife institutions. Later, bird and otter rehabilitation centers were established in Seward and additional bird centers were set up in Kodiak and Homer.

Exxon has agreed to provide $15 million for a study to evaluate the impacts of the EXXON VALDEZ spill on the natural resources of Prince William Sound. Participating in this study will be the National Oceanic and Atmospheric Administration (NOAA) of

the Department of Commerce, the Department of the Interior, the Department of Agriculture, and the State of Alaska. The early data gathered by the Exxon environmental assessment team will be made available for the study.

Separately, 14 Exxon-sponsored studies are underway or are planned for the near future. Seven of these studies address various aspects of the water and sediments and of shoreline and biological recovery in Prince William Sound, on the Kenai Peninsula, and the lower Cook Inlet. Two projects involve detailed toxicity testing using water and sediment samples collected in field surveys. Three scientific studies focus on commercial finfish and crustaceans, and additional studies address effects on kelp and eelgrass and possible effects on subsistence foods.

On April 2, nine days after the spill, a shoreline cleanup priority committee was formed and on April 8 preliminary approval was obtained from the Coast Guard and eight other agencies for a shoreline cleanup strategy. An initial plan was presented by Exxon on April 14 and approved by the Coast Guard on April 17. A revised plan was submitted on May 1 incorporating new data on impacted shoreline. The May 1 plan calls for cleanup of 364 miles of shoreline. The Coast Guard reviewed the May 1 plan and requested several changes, which Exxon has made. This plan will continue to evolve with experience gained in the field. See Section titled, "Environmental Response."

EXXON RESPONSE AND INITIAL MOBILIZATION

(March 24, 1989)

EXXON RESPONSE AND INITIAL MOBILIZATION
(March 24, 1989)

Exxon Oil Spill Response Program

Alyeska was responsible for the immediate on-scene response to the EXXON VALDEZ oil spill. Exxon Shipping Company had the responsibility for the next phase as shipowner. Because Exxon does not have an operating organization in Alaska, the initial arrangements for moving personnel, equipment, and materials to Valdez were coordinated from Houston.

Exxon's oil spill policy requires that each Exxon operating function and affiliate be responsible for responding to any oil spill resulting from its operations. Since a major oil spill could place a heavy burden on any one organization's manpower availability, Exxon has organized interfunctional oil spill response teams (IOSRT). The teams supplement manpower in the organization responding to a spill with a pool of trained oil spill cleanup supervisors and specialists from other Exxon functions and affiliates. The teams also have access to outside experts and oil spill cleanup equipment from the United States, Canada, and the United Kingdom as well as other sources. In the case of the EXXON VALDEZ oil spill, Exxon Shipping Company activated the IOSRT early Friday morning, March 24, and team members were notified according to pre-determined procedures.

Exxon Shipping Company headquarters in Houston and the West Coast Fleet office in Benicia, California had the initial responsibility to respond. Exxon Shipping Company key Response Team members were in Valdez within 18 hours of vessel grounding.

During the first 24 hours after the vessel grounding, there were significant activities by the Coast Guard, Alyeska, and others. This chronology covers only Exxon's response and initial mobilization during this period.

NOTE: ALL TIMES ARE ALASKA STANDARD TIME UNLESS OTHERWISE INDICATED. DOES NOT INCLUDE CASUALTY RESPONSE ACTIVITIES BY THE COAST GUARD, ALYESKA, OR OTHERS. TIME NOTATIONS ARE BASED ON NUMEROUS SOURCES, INCLUDING RECOLLECTIONS OF INDIVIDUALS.

FOR LIGHTERING AND SHIPBOARD OPERATIONS, SEE SECTION TITLED, "EXXON VALDEZ LIGHTERING AND SALVAGE."

FRIDAY, MARCH 24, 1989

0004 Ship's logs indicate EXXON VALDEZ grounded.

0027 Captain Hazelwood (Exxon Shipping Company) reported to Coast Guard Center in Valdez that the EXXON VALDEZ was hard aground on Bligh Reef.

0123 Nelson (Alyeska Pipeline Service Company) notified Warner (Exxon Pipeline Company) in Houston that the EXXON VALDEZ was grounded in Prince William Sound.

0125 Warner notified Iarossi (Exxon Shipping Company) in Houston and gave him Nelson's telephone number.

-- Iarossi called LeGrange (Exxon Company, U.S.A.) and Borgen (Exxon Shipping Company) - told Borgen to contact vessel.
-- Iarossi called Nelson in Anchorage, Duncan (Exxon Shipping Company) at home, Borgen and then McRobbie (Exxon Shipping Company) for vessel status, Gillette (Exxon Shipping Company) at home, and Nelson for update.
-- Iarossi received call from Quinn (Exxon Company, U.S.A.).

0140 Borgen telephoned Myers (Exxon Shipping Company) to call ship right away.

Myers spoke to Captain Hazelwood; water in forepeak, #2 starboard tank, ship stability is a concern.

0145 Borgen called Arts (Alaska Maritime Agencies). Arts will call right back; check VTS (Vessel Traffic System).

Arts returned call and reported that ship went aground 0028 on Bligh Reef, 12' tide, maneuvering in heavy ice.

0200 Nelson called Warner again with a further report.

0210 Warner asked Iarossi to talk directly to Nelson.

Iarossi called Borgen back; Borgen relayed information received from Myers.

0230 Arts called Borgen from VTS; Commander McCall (Coast Guard) there; Shier (Alyeska) there; lighter to BATON ROUGE; high tide was at 0200.

0300 Borgen discussed above with Myers.

0310 Iarossi called Borgen again; asked him to call Nelson.

0320 Borgen called Rassinier (Exxon Shipping Company) about Alyeska fenders for lightering. Rassinier made contact with O'Brien (oil spill consultant).

0330 Nelson called Borgen; reported 138,000 barrels spilled.

0350 Myers called Klepper (Exxon Shipping Company) and McRobbie re BATON ROUGE lightering.

0354 Rassinier notified Clean Bay (San Francisco) to place equipment (boom, skimmers, etc.) and operators on standby for dispatch to Valdez.

0400 Iarossi, Duncan, and Gillette arrived at office.

Rassinier notified Southern Air Transport (SAT) of need for plane to mobilize ADDS (Airborne Dispersant Delivery System) unit in Phoenix and dispersant ex Houston.

0405 Rassinier began to alert Exxon Interfunctional Oil Spill Response Team.

0410 Rassinier reported to Borgen that SAT in California on standby. Trying to contact Jefferies (Biegert Aviation, owner of ADDS pack).

0420 Gale (B.P. Americas) called Borgen about availability for lightering of OVERSEAS WASHINGTON (90 kDWT) and ADMIRALTY BAY (80 kDWT); also discussed Sampson ocean fenders (for lightering).

0425 Rassinier contacted Lindblom (dispersant consultant) for dispersant application logistics.

0430 Borgen called Commander McCall inquiring about approval for dispersants. Borgen understood McCall to state that Exxon Shipping Company had his approval to use dispersants on the spill. Discussed volume of spill and CIRO (Cook Inlet Oil Spill Response Group); use of BATON ROUGE to lighter; 35' water at low tide; present weather: 15 kt wind, 20-30°F, rain/slush, wet and damp.

0435 Exxon Shipping Houston Command Center activated.
-- Phone (713-656-2720) activated as Response Number.

Iarossi reviewed initial mobilization:
-- Exxon Shipping West Coast Response Team;
-- Exxon Interfunctional Oil Spill Response Team;
-- Spray aircraft C-130;
-- Oil Spill Response Ltd. (OSR) stockpile in United Kingdom;
-- Clean Bay stockpile; and
-- 2 other 707 aircraft contacted for dispersant shipment.

0440 Rassinier telephoned Conair (Abbotsford, British Columbia) for DC-6 spray plane. Answering service indicated office not open. Left message that Exxon needed a plane.

0448 Borgen called Rassinier. Relayed dispersant information from Commander McCall (see 0430 Borgen call). Discussed C-130 Hercules dispersant plane; Conair DC-6; Clean Bay's 4000' boom and skimmer; OSR, Southampton, England.

0500 Borgen spoke to Iarossi: Confirmed Borgen, Deppe (Exxon Shipping Company) and Myers departing for Valdez, also that Commander McCall said that Exxon Shipping Company had his approval to use dispersants on the spill.

0510 Rassinier called Esso Petroleum Co., Ltd. (UK) to alert OSR Southampton, U.K.

0515 Gillette contacted Companion (Exxon Chemical Company) regarding dispersant inventories.

0518 Rassinier contacted O'Brien enroute to Jacksonville to divert him to Valdez.

0525 Rassinier confirmed weather in Valdez 20-30°F, rain/slush, winds variable 15 kts, little wave action.

0530 Borgen telephone call with Rassinier; Borgen had ordered 1-2 helicopters in Valdez plus plane.

0540 Esso Petroleum confirmed to Rassinier that OSR on standby, OSR will contact Rassinier directly.

0548 Rassinier and Companion discussed dispersant volume available in Houston inventory and in Clean Bay, Clean Seas, and Clean Gulf stockpiles.

0549 Rassinier notified Pyburn (OSR) that need was for skimmers, sorbent, and portable tankage. OSR to load out Vikoma Sea Skimmer 50's and 1 heavy oil skimmer, fast tanks, manager, and four operators on first available flight.

0600 Following individuals started arriving Houston Command Center: Miller, Hughes, Silloway, Walding (all Exxon Shipping Company).
-- Started contacting/booking flights for Glock, Gorski, Botto, Hughes, Sowden (all Exxon Shipping Company), and Derryberry (Exxon Company U.S.A.).
Duncan ordered SAT C-130 to carry ADDS Pack from Phoenix to Anchorage.
-- Dep. 2155 March 24; Arr. 0612 March 25

OSR contacted airplane broker to order SAT 707 to carry four skimmers from Southampton, England to Bangor, Maine to Anchorage, Alaska.
-- Dep. 1316 March 25; Arr. Anchorage 0518 March 26.

06-- Mortenson (Clean Bay) indicated to Rassinier that Clean Bay had Walosep W-4, boom, and GT-185 skimmers and operators available. Rassinier lining up a DC-8 to transport to Anchorage.

0730 Gillette confirmed DC-8 (previously ordered by Duncan) from Three Way Charter Brokers (3-Way) to carry skimmers and Clean Bay equipment from Oakland to Anchorage.
-- Dep. 1600 March 24; Arr. 2100 March 24

0800 Gillette called Stephens (Exxon Company, International) to alert marine group in Exxon Company, International (Florham Park, New Jersey).

0810 Rassinier called Anderson (3-Way). 3-Way had a DC-8 to pick up Clean Bay Inc. equipment in Oakland.

Gillette called Crawford (Clean Caribbean Cooperative) who had ADDS pack (owned with Marine Industry Group); the Cooperative would not make it available. Must remain in area of interest.

0820 Borgen, Deppe, and Myers departed Oakland, CA.

0836 Exxon company plane departed Houston; ETA Valdez 1730.
-- Passengers: Iarossi, Duncan, Rassinier, Marston (Exxon Risk Management Services, Inc.), Nicholas (Exxon Shipping Company), and Lindblom.

Intermittent contact from aircraft (air phone) with Houston, Valdez, vessel, and Florham Park.

0840~ Tompkins (Exxon Shipping Company) and Hughes arrived Houston Command Center.
-- Tompkins contacted Stalzer, EXXON VALDEZ Relief Captain, and asked him to come in to provide expertise on vessel.

0900 Cirigliano (Exxon Company, U.S.A.) flew from Anchorage to Valdez by helicopter.

Companion and Gillette discussed dispersant availability.

Gillette made arrangements to deliver dispersant drums to Houston airport.

1050 Glock departed Newark, New Jersey; ETA Anchorage 2356.

1115 Hughes and McDonald (Exxon Shipping Company) departed Houston; ETA Anchorage 2221.

1210~ Weatherford (Exxon Shipping Company) diverted communication equipment from Long Beach to Valdez.

1215 Smith (Exxon Shipping Company) arrived; evaluating vessel stability.

1315 Exxon company plane made fueling stop in Seattle.

1322 From Seattle stopover, Rassinier contacted Alyeska Emergency Center (Anchorage) for update. Reviewed equipment availability with Henman (Alyeska).
-- Rassinier requested Alyeska explore in situ burning.

1348 Rassinier confirmed with Houston Command Center following planes enroute:
-- 707 ex U.K.;
-- DC-8 ex Oakland;
-- C-130 ex Houston; and
-- C-130 ex California to Phoenix.

1350 Gorski departed Baton Rouge LA; ETA Anchorage 2356.

1435 Botto, Derryberry, and Sowden departed Houston; ETA Anchorage 2356.

1600 3 Way DC-8 departed Oakland for Anchorage with skimmers, Clean Bay equipment.

1700~ Weatherford telephoned Coast Guard West Coast Strike Team. Spoke to Borden (Coast Guard) (415-883-3311) and informed him of the Houston Command Center. Borden indicated that Commander McCall was the On-Scene Coordinator (OSC) (907-835-4791). Coast Guard sent eight personnel plus equipment.

1730 Borgen, Deppe, and Myers arrived Valdez.

1737 Iarossi, Duncan, Rassinier, Marston, Nicholas, Lindblom arrived Valdez. They joined Maki (Exxon Biomedical Sciences, Inc.), Allen (oil spill burn consultant), and Cirigliano from Anchorage who were already in Valdez.

1755 Iarossi met Commander McCall. Discussed situation. McCall indicated need to test dispersants.

1800~ Press conference held at Civic Center (1 1/2 hours).

1825 Rassinier telephoned Houston Command Center regarding aircraft mobilization.

2000~ Conair contacted Rassinier who told Conair to come to Valdez with DC-6 spray aircraft.

Iarossi held meeting with Exxon Response Team to review status of vessel, lightering plans, oil spill location, current Alyeska actions to limit spill, plans for use of dispersants, plans for use of burning, equipment mobilization status, personnel enroute, operations center, etc.

2040 Rassinier met with Alyeska emergency team in Valdez Terminal Center to review people and equipment available or on order.
-- Agreed to meet for overflight at airport at 0800, Saturday, March 25.

2100 3 Way DC-8 arrived Anchorage from Oakland with skimmers and Clean Bay equipment.

2155 SAT C-130 (originating in California) departed Phoenix (where crews and equipment had been assembled) for Anchorage with ADDS Pack.

BUILDUP OF PERSONNEL AND EQUIPMENT: DEPLOYMENT OF BOOMS AND SKIMMERS: AND OIL RECOVERED FROM THE WATER

(March 24 - April 12, 1989)

BUILDUP OF PERSONNEL AND EQUIPMENT; DEPLOYMENT OF BOOMS AND SKIMMERS; AND OIL RECOVERED FROM THE WATER

(March 24 - April 12, 1989)

The chronology of Exxon's initial mobilization on March 24, 1989, details how arrangements were made for moving people to Valdez; for procuring dispersants, dispersants spraying equipment, booms, and skimmers; and for transporting them to Valdez.

Alyeska and Exxon called upon the resources of oil industry spill cooperatives and equipment stockpiles. Alyeska arranged for equipment and operators to be brought to the scene from Alaska Clean Seas and the Cook Inlet Response Organization. Exxon obtained booms, skimmers, and operators from the San Francisco industry cooperative (Clean Bay) and from the Oil Stockpile Response Ltd. industry equipment stockpile in Southampton, England.

At Exxon's request, the Coast Guard and U.S. Navy also supplied booms and added significantly to the number of skimmers deployed to remove oil on the water.

Exxon's effort to assemble people and equipment quickly grew. Attachment 1 details the buildup of personnel in Valdez operations from the day of the spill, March 24, to April 12, about three weeks later. It shows the number of Exxon employees, contract personnel, and contract fishermen. The total grew from 176 on March 24 to 1,300 by April 12. Currently, over 8,000 persons are involved in the operation.

Attachment 2 summarizes the equipment delivered by air. Supplies delivered from the Lower 48 and abroad were landed in Anchorage and transhipped to Valdez, Cordova, Seward, Homer, and Kodiak. By April 12, over 1,800 tons of equipment had been delivered.

Attachment 3 lists equipment deployed--vessels by type, the amount of containment boom deployed, and the number of skimmers. Totals grew rapidly, especially after special communications facilities were installed and major command, supply, and housing vessels were deployed to direct and support the offshore operations on the west side of Prince William Sound, some 10-12 hours by boat from Valdez and Cordova. Of the 41 skimmers deployed by April 12, 14 were provided by the Navy and one by the Coast Guard; and additional Navy and Coast Guard equipment was being readied for deployment.

Protection of Fish Hatcheries

In the days immediately following the spill, Exxon sought the help of local fishermen and government officials to protect the most environmentally sensitive areas of Prince William Sound. On Saturday, March 25, Exxon representatives met with fishermen, the Coast Guard, the Alaska Department of Environmental Conservation (ADEC), and representatives of other state agencies to determine those areas which should be defensively boomed. Galena Bay and other locations along the eastern side of the Valdez Arm were targeted. Booms were loaded on fishing boats late in the day, allowing booming of these areas to commence on Sunday.

On Monday, March 27, it became apparent that areas east of the spill site would not be impacted due to the gale force winds of the prior night. Agreement was reached that day at a joint meeting of the Steering and Operating Committees (comprised of representatives from the Coast Guard, state agencies, fishermen, and Exxon) to protect four key fish hatcheries along the western side of Prince William Sound--Esther Bay, Main Bay, Sawmill Bay, and Eshamy Bay. Each of these areas was protected with multiple lines of boom which were deployed over the period March 28 to April 7.

In these operations, Exxon worked with fishermen on a contract basis or subsequently compensated those who volunteered their efforts. With the help of both groups of fishermen, the fish hatcheries were protected from the oil spill.

Skimming Operations

Skimmers were initially directed into the heaviest concentrations of oil south of the EXXON VALDEZ. Following gale force winds Sunday night and early Monday, March 26 and 27, skimmers pursued the oil to the north end of Knight Island, where a concentrated effort was directed. Later, available skimmers were positioned defensively near the Sawmill Bay hatchery, with the exception of the Coast Guard skimming barrier which moved southward in the Knight Island passage.

As the free floating oil moved into the Gulf of Alaska, most of the skimmers were repositioned to Point Hogan and Snug Harbor to skim the oil contained in this area.

Oil Recovered from the Water

By April 12, about 20,000 barrels of oil had been recovered from the water. Additional oil has been recovered since then, and the total is currently estimated to be about 52,000 barrels.

Attachment 1

DAILY PERSONNEL COUNT
VALDEZ OPERATIONS
3/24/89 THROUGH 4/12/89

	MARCH								APRIL											
	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12
EXXON:																				
ON-SITE (1)	29 (2)	30	39	45	47	53	55	56	57	68	74	76	82	84	88	87	93	92	99	101
ROTATION/RELIEF									3	4	6	6	12	14	18	19	19	21	21	22
SUBTOTAL EXXON	29 (2)	30	39	45	47	53	55	56	60	72	80	82	94	98	106	106	112	113	120	123
CONTRACT	61	148	163	207	216	277	375	323	347	367	382	449	456	492	584	620	619	624	625	790
CONTRACT FISHING PERSONNEL																				
VALDEZ	57	48	54	15	75	78	60	36	261	252	250	270	231	285	237	237	276	246	264	258
CORDOVA (est)	29	24	27	8	38	39	30	18	131	126	125	135	116	143	119	119	138	123	132	129
SUBTOTAL	86	72	81	23	113	117	90	54	392	378	375	405	347	428	356	356	414	369	396	387
TOTAL PERSONNEL	176	250	283	275	376	447	520	433	799	817	837	936	897	1018	1046	1082	1145	1106	1141	1300

(1) Largely Valdez
(2) Includes 18 people in Anchorage enroute to Valdez

Attachment 2

SUMMARY OF EQUIPMENT DELIVERED BY AIR FREIGHT

DATE	NUMBER OF AIRCRAFT ordered	departed	arrived	CARGO ARRIVING (tons)	CUMULATIVE TOTAL (tons)	DESCRIPTION OF CARGO ARRIVING
3/24 FRI	4	2	1	15	15	Skimmers
3/25 SAT	6	4	3	47	62	ADDS Package, dispersants, portable pumps
3/26 SUN	5	4	6	150	212	Skimmers, dispersants, portable pumps
3/27 MON	9	8	5	93	305	ADDS Package, dispersants, manifolds
3/28 TUE	3	8	9	289	594	Portable pumps, dispersants, steel weld Pods
3/29 WED	5	2	2	24	618	Portable pumps, beach cleanup equipment
3/30 THU	6	6	7	180	798	Boom, boats, Exxon Command van, fenders, absorbent, dispersants, safety equipment
3/31 FRI	4	2	2	56	854	Skimmers, absorbent
4/1 SAT	6	9	3	85	939	Boom, pumps, skimmers, Navy equipment
4/2 SUN	5	5	9	189	1,128	Skimmers, beach cleanup equipment, booms, Navy equipment, dispersants, pumps
4/3 MON	0	0	3	111	1,239	Booms, Navy equipment, skimmers
4/4 TUE	4	4	3	134	1,373	Skimmer, power packs, command center, boom
4/5 WED	3	1	1	10	1,383	Boom
4/6 THU	3	4	3	30	1,413	Boom
4/7 FRI	0	1	3	80	1,493	Pumps, absorbant, boom
4/8 SAT	7	7	1	16	1,509	Steam cleaners, sorbent boom
4/9 SUN	2	2	6	90	1,599	Portable boiler, oil solvent pads, pumps, boom, generators, absorbent hoses
4/10 MON	3	3	2	39	1,638	Hose, generator parts, pumps, oilsnare
4/11 TUE	2	2	5	152	1,790	Pumps, valves, boom, generator sets, video equipment, facsimile machine, hot water pressure washers
4/12 WED	2	2	2	37	1,827	Hot water pressure washers, oil water separator tanks

79 flights ordered.
76 departures, one cancelled before departure, one aircraft had not departed as of April 13.
76 arrivals, two cancelled, one had not departed as of April 13.

* Information is subject to verification.

Attachment 3

EQUIPMENT DEPLOYED

Date	Day	VESSELS					Boom ft.	Skimmers	Aircraft
		Major	Fishing	Tugs	Barges	Total			
3/24	1 (Fri.)	5	14	5	1	25	15k	3	*
3/25	2 (Sat.)	6	46	3	1	56	26k	6	*
3/26	3 (Sun.)	8	59	3	2	72	33k	6	*
3/27	4 (Mon.)	7	51	6	2	66	34k	7	*
3/28	5 (Tues.)	7	56	6	2	71	34k	7	*
3/29	6 (Wed.)								
3/30	7 (Thurs.)	9	65	6	2	82	71k	12	*
3/31	8 (Fri.)	13	85	4	2	104	84k	12	*
4/1	9 (Sat.)	13	85	4	2	104	86k	13	14
4/2	10 (Sun.)	16	85	4	2	107	111k	13	18
4/3	11 (Mon.)	16	85	4	2	107	115k	16	18
4/4	12 (Tues.)	16	85	5	3	109	121k	18	18
4/5	13 (Wed.)	16	85	5	3	109	121k	18	18
4/6	14 (Thurs.)	16	85	5	3	109	146k	18	18
4/7	15 (Fri.)	16	85	6	3	110	158k	25	18
4/8	16 (Sat.)	16	85	6	3	110	188k	29	18
4/9	17 (Sun.)	16	123	7	5	151	200k	39	22
4/10	18 (Mon.)	16	123	7	5	151	211k	38	26
4/11	19 (Tues.)	16	123	7	5	151	211k	39	26
4/12	20 (Wed.)	16	182	7	5	210	238k	41	26

NOTE: Information is subject to verification.

* Information not yet available for these dates.

EXXON VALDEZ LIGHTERING AND SALVAGE

(March 24 - April 5, 1989)

EXXON VALDEZ Lightering and Salvage Overview
(March 24 - April 5, 1989)

With the Coast Guard's active involvement, one of the major challenges the Exxon Shipping Company Response Team had to deal with was the situation of the vessel. The damaged tanker was grounded in a precarious position on a rocky ledge, and an additional one million barrels of oil remained in the vessel, most of which was in cargo tanks damaged in the grounding. The initial assessment indicated the damaged vessel would likely capsize if it slipped off the ledge, thus spilling the remaining oil.

The 75,000 ton tanker, EXXON BATON ROUGE, arrived on-scene shortly after the grounding. However, before lightering operations could commence, the water depth in the vicinity of the EXXON VALDEZ had to be determined accurately so as to avoid grounding of the lightering vessel. Also, because of the precarious position of the vessel and the potential for it to capsize, a lightering plan had to be developed which would allow sea water to displace any oil removed, providing for the entire operation to be completed without any appreciable weight shift aboard the damaged vessel. By Saturday morning, March 25, the EXXON BATON ROUGE was tied up alongside the EXXON VALDEZ and cargo transfer was initiated using the EXXON VALDEZ's cargo pumping system. However, the transfer was halted almost immediately when it appeared that the grounding had damaged the piping system in the tanks. Lightering operations were restarted Saturday evening using portable pumps. Ten portable pumps were eventually placed in operation. Three pumps, including the initial two, were supplied by the Coast Guard, along with spares; the others, plus additional spares, were mobilized by Exxon. Substantially all this equipment had been flown to Alaska and transported out to the vessel by helicopter and boat. To increase pumping rates, piping manifolds were constructed by the ship's crew.

Also on Saturday, a team of divers completed an initial underwater survey of the damaged vessel. These efforts were complicated by underwater currents and by the movement of the vessel on the ledge. The initial survey confirmed very substantial underwater damage over about 50% of the vessel's bottom. The survey indicated the vessel was balanced on a rocky pinnacle at about its midpoint. Later surveys (confirmed by video recorder) showed the vessel was resting on a rocky ledge slightly forward and to the right of the vessel's midpoint. Less than 15% of the vessel's bottom was actually grounded on the ledge. The precarious nature of the vessel was confirmed early Monday morning, March 27, when gale force winds of about 50 miles per hour caused the EXXON VALDEZ to pivot twelve degrees to a new resting position.

The EXXON BATON ROUGE completed loading late on Wednesday, March 29. Early the next morning, Thursday, March 30, a second 75,000 ton tanker, the EXXON SAN FRANCISCO, came alongside the EXXON VALDEZ and cargo transfer to the second lightering vessel began. On Sunday, April 2, the EXXON SAN FRANCISCO completed its lightering operations. A third tanker, the 58,000 ton EXXON BAYTOWN, then came alongside the EXXON VALDEZ to receive substantially all of the remaining recoverable oil and also some of the oily water remaining in the damaged vessel. By Tuesday, April 4, this transfer was completed.

While lightering operations were underway, the Exxon team had worked with salvage experts to develop a plan to refloat the vessel once the recoverable oil was removed. The final plan called for sealing deck openings and using compressed air to force some of the seawater out of the damaged tanks, thus lowering the water level in the tanks and reducing the weight of the vessel. On Wednesday morning, April 5, the combination of compressed air in the damaged tanks and a rising tide resulted in the refloating of the EXXON VALDEZ. Following the refloating of the vessel, it was moved 25 miles to a sheltered cove, in order to complete an assessment of the vessel's condition and to ready it for a sea voyage to a repair facility.

Lightering Summary

	Barrels (GSV) (Thousands)	
EXXON VALDEZ initial load		1,263
Lightered to:		
EXXON BATON ROUGE	462	
EXXON SAN FRANCISCO	403	
EXXON BAYTOWN	119	
Barges (subsequent to refloating)	21	
Total lightered		1,005
Total spilled		258

NOTE: ALL TIMES ARE ALASKA STANDARD TIME UNLESS OTHERWISE INDICATED. TIME NOTATIONS ARE BASED ON NUMEROUS SOURCES, INCLUDING RECOLLECTIONS OF INDIVIDUALS.

FRIDAY, MARCH 24, 1989

0004 Vessel grounded per ship's logs.

0027 Captain Hazelwood (Exxon Shipping Company) reported to Coast Guard Center in Valdez that the EXXON VALDEZ was hard aground on Bligh Reef.

0123 Nelson (Alyeska Pipeline Service Company) notified Warner (Exxon Pipeline Company) in Houston that the EXXON VALDEZ was grounded in Prince William Sound.

0125 Warner notified Iarossi (Exxon Shipping Company) in Houston and gave him Nelson's telephone number.
-- Iarossi called Borgen (Exxon Shipping Company) - told Borgen to contact vessel.

0140 Borgen telephoned Myers (Exxon Shipping Company) to call ship right away.

Myers called vessel - spoke with Captain Hazelwood - confirmed grounding and damage.

0200 Vessel sounded and ullaged all tanks - vessel stability was a concern.

0338 Commander Falkenstein (Coast Guard) arrived at EXXON VALDEZ to review situation.

0410 EXXON BATON ROUGE notified to prepare for lightering of EXXON VALDEZ.

0448 EXXON VALDEZ put out two shots (180') starboard anchor.

0718 EXXON BATON ROUGE arrived Cape Hinchinbrook.

AM EXXON SAN FRANCISCO notified. Told to anchor and wait to lighter EXXON VALDEZ after the EXXON BATON ROUGE.

0842 Commander Falkenstein authorized discharge of dirty ballast from EXXON BATON ROUGE.

1035 Pilot boat CHERKOV sounded, surveyed port side and approaches to EXXON VALDEZ for lightering vessel approach.

1121 HELENKA B alongside to transfer cargo hoses.

1157 Tug SEAFLYER alongside EXXON BATON ROUGE.

1230 Tug STALWART alongside EXXON BATON ROUGE.

1544 Fenders secured to EXXON VALDEZ.

1635 Pilot Joselyn boarded EXXON BATON ROUGE for approach to EXXON VALDEZ.

1700± Weatherford (Exxon Shipping Company) called Borden (Coast Guard West Coast Strike Team) and informed him of the Houston Command Center. Borden indicated that the Coast Guard had sent eight Strike Team personnel plus equipment.

1730 Deppe, Borgen, and Myers (all Exxon Shipping Company) arrived in Valdez from West Coast Fleet Office in Benicia, California.

1737 Iarossi, Duncan, Rassinier, Nicholas (all Exxon Shipping Company), Marston (Exxon Risk Management Services, Inc.), Lindblom (dispersant consultant) arrived in Valdez from Houston.

1745± Iarossi instructed Deppe to go to EXXON VALDEZ to assess situation and to relieve Captain Hazelwood.

1922 Orders received by EXXON BATON ROUGE to go alongside EXXON VALDEZ.

2000± After initial meeting with Commander McCall (Coast Guard) and press conference, Iarossi met with Exxon Response Team.

2030 Divers arrived at EXXON VALDEZ, began underwater survey of damage to vessel.

2144 EXXON BATON ROUGE all fast to EXXON VALDEZ.

2200 Deppe, Myers, Nicholas, Marston arrived at EXXON VALDEZ. Deppe went to bridge to determine vessel status.

2230 EXXON SAN FRANCISCO arrived Hinchinbrook.

2237 Cargo hoses connected - (2) 6" (EXXON VALDEZ - EXXON BATON ROUGE).

2240 Awaited diver report, consultation with Smith (Exxon Shipping Company naval architect), before began pumping.

2300 Discussed with Smith - gave preliminary advice not to allow vessel to move from reef (fear of capsizing). Gave preliminary advice about pumping out undamaged port side tanks.

Hazelwood departed EXXON VALDEZ for Valdez. Deppe in command.

Deppe agreed that portable pumps would be needed for discharge of damaged tanks - pump from top, let water enter from bottom.

2400 Divers found substantial damage over entire starboard side and center tanks. All tanks holed and set in. Initial report vessel aground in vicinity of tank 3C.

SATURDAY, MARCH 25, 1989

0600 EXXON BATON ROUGE, EXXON VALDEZ partially boomed (U-shaped configuration downwind of vessels in direction of the flow of oil).

EXXON BATON ROUGE supplied additional pipe, blanks, reducers to EXXON VALDEZ for hose connections to increase cargo transfer rates.

0736 Commenced cargo discharge to EXXON BATON ROUGE via main cargo pumps.

0750 Divers completed initial underwater hull survey of EXXON VALDEZ.

0824 Observed oil leaking from EXXON VALDEZ starboard side. Shut down pumps immediately. Decided to use portable pumps for discharge of undamaged tanks. (Approximately 10,000 barrels transferred to EXXON BATON ROUGE before shutdown.)

1000 Coast Guard Pacific Strike Team personnel (4) aboard with two submersible pumps - started receiving equipment for on-deck lightering.

PM Ship's engineers constructed manifold connections for Pacific Strike Team hoses using 16" blanks and 6" pipe from ship stores. Coast Guard Pacific Strike Team began setting up equipment.

Decided to discharge damaged tanks first
-- least impact upon vessel trim/stress;
-- damaged tanks presented greatest potential for further pollution; and
-- less vertical lift required for complete discharge with small submersible pumps.

Exxon Command Center initiated supply of submersible pumps to vessel - one from Anchorage, one from Seattle, three from Detroit.

2243 Began discharge via two Coast Guard submersible pumps - about 2,000 barrels per hour.

2400 About 12,000 barrels discharged to EXXON BATON ROUGE.

SUNDAY, MARCH 26, 1989

0600 Four pumps arrived in Anchorage - Exxon Command Center arranged transportation to Valdez.

AM Connected two more 6" cargo hoses.

1200 One pump sent to EXXON VALDEZ via boat.

1230 Three pumps arrived in Valdez - diesel fuel sent to vessel for pumps.

1500 One pump arrived in Valdez - arranged helicopter to vessel for pump delivery.

1830 Dive boat VIXEN alongside for vessel survey operations.

1930 Marine Pollution Control sent crew (8) out via vessel COLOMBIA QUEEN for portable pump operation.

PM Exxon Command Center arranged boat to bring pumps to vessel - pumps transferred across deck of EXXON BATON ROUGE due to rough weather - arranged for two triple header manifolds to be flown to Valdez.

MONDAY, MARCH 27, 1989

0015 Triple manifold transportation delayed due to plane problem. Ship's engineers rigged double and triple manifold connections in machine shop.

0207 Tug STALWART on starboard bow of EXXON BATON ROUGE asked to push slow ahead on both engines to keep EXXON VALDEZ from pivoting in high winds (about 42 knots).

0339 Third pump started.

AM Spray freezing on deck in heavy winds.

0600 Discharging at 3,600 barrels per hour - 77,000 barrels total transferred.

1054 Fourth pump started. Three more pumps being set up.

1500 Four pumps operating, 3,300 barrels per hour; 105,000 barrels transferred. Arranging three more pumps from Houston - one from New Orleans.

2000 EXXON BAYTOWN notified about possibility of lightering.

2030 Five pumps on line - about 6,000 barrels per hour.

TUESDAY, MARCH 28, 1989

0230 Sixth pump on line.

0500 184,000 barrels to BATON ROUGE averaging 7.7k barrels per hour - seven pumps operating.

1000 Coast Guard reported two additional strike team members were being placed aboard the EXXON VALDEZ.

1328 EXXON BAYTOWN instructed by Exxon to minimize dirty ballast before arrival to maximize cargo capacity.

1800 274,000 barrels to BATON ROUGE - averaging 7,000 barrels per hour; six pumps operating, including three Coast Guard Strike Team pumps.

1930 Divers inspected under and around EXXON BATON ROUGE for pinnacles to ensure there would be no damage as vessel became lower in water as additional cargo loaded.

2200 EXXON BAYTOWN received order to lighter 100,000-150,000 barrels from EXXON VALDEZ.

WEDNESDAY, MARCH 29, 1989

0225 Started eighth pump; various pumps used due to pump maintenance, hose leaks, repairs, and shifts between tanks.

0500 Transferred 355,000 barrels at about 7,700 barrels per hour - seven pumps on line, requested more pumps.

AM Engineers began preparations on-deck for sealing deck openings with steel blanks for refloating operation.

1036 EXXON SAN FRANCISCO all fast Berth 5 in Valdez to discharge dirty ballast.

1200 390,000 barrels transferred to BATON ROUGE - seven pumps operating.

1728 EXXON SAN FRANCISCO underway from Berth 5 to lighter the VALDEZ.

1800 451,000 barrels transferred to EXXON BATON ROUGE.

1922 EXXON SAN FRANCISCO ordered to go to anchor and wait for first light.

2042 Finished discharging to EXXON BATON ROUGE.

2200 Hoses disconnected.

2230 Began letting go.

2256 Last line.

2312 EXXON BATON ROUGE clear.

2318 Dive boat INSPECTOR alongside to survey port side of EXXON VALDEZ hull.

EXXON BATON ROUGE final cargo volume - 462,015 barrels (GSV).

THURSDAY, MARCH 30, 1989

0330 EXXON BAYTOWN arrived Cape Hinchinbrook.

0410 Forty drums diesel oil delivered for pumps.

0434 EXXON SAN FRANCISCO underway from Knowles Head with Pilot Elde.

0548 Divers reported hole in forepeak leaking oil.

0606 EXXON BAYTOWN anchored Knowles Head.

0759 EXXON SAN FRANCISCO off EXXON VALDEZ.

0830 First line (EXXON SAN FRANCISCO - EXXON VALDEZ).

0900 Total volume remaining aboard EXXON VALDEZ 556,098 barrels - lightered about 461,686 barrels.

1136 All fast - EXXON SAN FRANCISCO.

1330 First hose.

1426 Last of three hoses - (2) 6", (1) 10".

1518 Started transfer of cargo to EXXON SAN FRANCISCO.

1614 Shut down cargo - line up problems aboard EXXON SAN FRANCISCO.

1745 Resumed transfer.

1800 Coast Guard reported four additional Strike Team personnel and equipment were being transported to the EXXON VALDEZ.

2200 Rate 12,000 barrels per hour - nine pumps.

FRIDAY, MARCH 31, 1989

0220 Tenth pump on line.

AM EXXON SAN FRANCISCO engineers and EXXON VALDEZ engineers worked to secure deck for salvage operation.

0600 Prime movers (diesel driven hydraulic power packs) - 14, 12 - available, 10 - working; 10 - pumps.

1200 Total aboard EXXON SAN FRANCISCO - 184,000 barrels.

Coast Guard reported salvage operation equipment had been airlifted to the EXXON VALDEZ.

PM Number of pumps varied due to tank switches.

SATURDAY, APRIL 1, 1989

0300 330,366 barrels remained aboard EXXON VALDEZ; EXXON SAN FRANCISCO lightered 260,000 barrels.

Prime movers - 14, available - 10, working - 7; pumps - 18, available - 17, working - 7.

0541 Automatic fire alarm sounded on EXXON VALDEZ - shut down all cargo lightering operations - burned toast in galley - tripped system - all personnel aboard mustered at boat stations.

AM Oil volume in tanks decreasing; therefore, more time required to "strip" and reposition pumps. Continued preparations for vessel float-off.

SUNDAY, APRIL 2, 1989

0500 200,894 barrels remained aboard EXXON VALDEZ.

0600 Eight pumps on-line - 200,000 barrels left aboard EXXON VALDEZ.

1030 Started #1 main cargo pump to discharge starboard slop tank to EXXON SAN FRANCISCO.

1300 Finished cargo to EXXON SAN FRANCISCO.

1400 Hoses disconnected.

EXXON BAYTOWN underway to lighter EXXON VALDEZ - Pilot J. Hurd.

1611 Last line.

1630 EXXON SAN FRANCISCO clear of EXXON VALDEZ.

Cargo aboard EXXON SAN FRANCISCO - 402,707 barrels (GSV).

1705 Tugs CRUSADER and STALWART alongside EXXON BAYTOWN.

1754 First line.

1915 All fast - EXXON BAYTOWN.

2000 Connected (2) 6" hoses.

2030 Started cargo transfer to EXXON BAYTOWN.

MONDAY, APRIL 3, 1989

0643 Third 6" hose connected - EXXON BAYTOWN.

0700 Seven pumps in use - 97,000 barrels left aboard EXXON VALDEZ.

99-074 - 89 - 10

1500 70,404 barrels remained on EXXON VALDEZ.

PM Continued plans - continued deck modifications for vessel float-off.

TUESDAY, APRIL 4, 1989

0800 Finished transfer of cargo to EXXON BAYTOWN - 119,306 barrels (GSV).

0850 Hoses disconnected.

0913 Began letting go.

0957 All clear - EXXON BAYTOWN.

PM 16,508 barrels remained aboard EXXON VALDEZ (later updated to 20,761 barrels).

Completed all refloating plans - dry run - final equipment checked for vessel float-off.

All nonessential shoreside employees, regulatory officials began to leave the vessel.

WEDNESDAY, APRIL 5, 1989

AM Remaining nonessential vessel crew and personnel left vessel - only salvage team members onboard.

0620 Pilot E. Murphy aboard.

0700-
0800 Tugs made fast - (2) on hawsers - bow, (1) starboard bow,(1) port bow, (1) starboard quarter, (1) port quarter; began securing tanks - pressuring tanks.

0825 Anchor aweigh.

0920 Fenders away.

1030 Vessel afloat.

NOTE: All cargo volumes from ships' measurements are approximate.

DISPERSANTS AND BURNING

(March 24 - March 29, 1989)

DISPERSANTS AND BURNING
(March 24 - March 29, 1989)

Alyeska's Oil Spill Contingency Plan for Prince William Sound (January 1987), which was approved by federal and state agencies, emphasized that the early use of dispersants and open burning were the most effective immediate steps that could be taken to mitigate environmental impacts. In the words of the Plan:

> In reviewing the aspects of this size spill it becomes very apparent how important it is to have dispersants approved so that they can be used very effectively to prevent the continuing input of oil into the small bays and shorelines in Prince William Sound. Burning also has to be looked at as a very good alternative to the cleanup in Prince William Sound on the various inlets and bays in which oil may accumulate.

The Coast Guard did not authorize Exxon Shipping Company to use dispersants, other than for tests, until 1845 hours on the third day after the spill (Sunday evening, March 26). Exxon also did not receive permission to use open burning, other than for tests, until mid-afternoon of the same day. Exxon is confident that had it obtained prompt permission to use dispersants and open burning, the environmental damage from the spill would have been significantly mitigated. (See Attachment 1, "Dispersant Availability and Effectiveness.")

Establishment of Guidelines and Zones for Use of Dispersants

Under a 1986 Memorandum of Agreement, the Coast Guard, the U.S. Environmental Protection Agency (EPA), and the State of Alaska, through its Department of Environmental Conservation (ADEC), provided for the use of dispersants by predesignated Coast Guard On-Scene Coordinators (OSC) under conditions prescribed in the "Oil Dispersant Guidelines for Alaska" (Alaska Guidelines). As part of the Alaska Guidelines, a Regional Response Team (RRT) working group developed specific guidelines for Prince William Sound that classified the waters of the Sound into three separate zones for use of dispersants. The RRT is a joint federal and state group consisting of ADEC and the following 12 federal agencies: the Departments of Agriculture, Commerce, Defense, Energy, Health and Human Services, Interior, Justice, Labor, State, and Transportation (Coast Guard); the EPA; and the Federal Emergency Management Agency.

MAP 1 shows the three zones. In Zone One, the Coast Guard OSC can authorize the use of dispersants. He is not required to seek further approval, concurrence, or consultation from the EPA or ADEC, on behalf of the State of Alaska, prior to use.

In Zone Two, use of dispersants is conditional, and the OSC must obtain EPA and ADEC approval prior to application. Finally, in Zone Three, use of dispersants is generally not recommended, and the EPA and ADEC must approve their use on a case-by-case basis.

Therefore, in the case of the EXXON VALDEZ oil spill, Exxon could not use dispersants anywhere, including in Zone One, without the OSC's specific approval.

In developing the specific dispersant use guidelines for Prince William Sound, the RRT recognized the likelihood that dispersants would assist in minimizing environmental damage from an oil spill. In the words of the guidelines:

> The dispersant use guidelines for Prince William Sound focus on the tanker traffic lanes and reflect the remoteness and fjord geomorphology of the Sound. Designation of the tanker lanes primarily as Zone 1 was deemed desirable due to:
>
> - the large volume of oil transported through the Sound via these lanes;
> - the difficulty in mechanically containing and removing spilled oil; and
> - the likelihood that dispersant use would assist in minimizing the environmental effects of a spill, particularly oil contamination of sensitive coastal resources and habitats.

The specific dispersant use guidelines for Prince William Sound were adopted in an amendment to the 1986 Memorandum of Agreement by the Coast Guard and the EPA on March 10, 1989, and by ADEC on March 20, 1989, four days before the EXXON VALDEZ oil spill.

Chronology

In reading through the chronology of events, the following should be kept in mind (see MAP 2):

Friday, March 24:	Ship grounded, most of the oil was in Zone Two.
Saturday, March 25:	Early afternoon, NOAA surveillance flight verified that oil spill leading edge had moved into Zone One.
Sunday, March 26:	All day, oil spill largely remained in Zone One.
Monday, March 27:	Early morning, gale force winds blew most of the oil into Zone Three in the vicinity of Naked and Knight Islands.

Attachment 1 summarizes the availability of dispersants to conduct spraying operations and the effectiveness of dispersants.

NOTE: ALL TIMES ARE ALASKA STANDARD TIME UNLESS OTHERWISE INDICATED. TIME NOTATIONS ARE BASED ON NUMEROUS SOURCES, INCLUDING RECOLLECTIONS OF INDIVIDUALS.

FRIDAY, MARCH 24, 1989

NOTE: For additional details about the mobilization during the first 24 hours of spray planes, dispersants, and dispersant equipment, see Section titled, "Exxon Response and Initial Mobilization."

0238 Shier (Alyeska Pipeline Service Company) spoke to Commander McCall, the Coast Guard OSC, and orally requested use of dispersants.

0430 Borgen (Exxon Shipping Company) called Commander McCall inquiring about approval for dispersants. Borgen understood McCall to state that Exxon had his approval to use dispersants on the spill.

0600 Duncan (Exxon Shipping Company) ordered SAT C-130 to carry ADDS Pack (Airborne Dispersant Delivery System) from Phoenix to Anchorage.
--Dep. 2155 March 24; Arr. 0612 March 25

0630 Commander McCall requested that Alyeska submit in writing the request to use dispersants and fax the request forms to him.

0800~ Pursuant to Commander McCall's direction, Alyeska faxed to the Coast Guard in Valdez a 10-page emergency handwritten request to use dispersants beginning at 2:00 p.m. that afternoon, March 24, using both fixed wing and helicopter spray craft.

1000 After the Coast Guard told Alyeska that its Valdez facsimile machine was malfunctioning, Alyeska faxed the same written request to the RRT in Anchorage.

1200 Alyeska submitted a handwritten request for permission to burn to the Coast Guard in Valdez.

NOTE: There was a Friday afternoon Alyeska test of dispersants sprayed from a helicopter before the Exxon team arrived. The OSC decided that the application was ineffective.

1737 Iarossi (Exxon Shipping Company) and other personnel arrived in Valdez.

1755 Iarossi met Commander McCall. Discussed situation. McCall indicated need to test dispersants.

1800~ Press conference held at Civic Center (1-1/2 hours). Iarossi emphasized need to move quickly to disperse oil.
-- At the press conference Governor Cowper stated: "There has been a lot of speculation on the use of dispersant. Everybody realizes the risk that that poses to marine life. We are already seeing some effect on marine life just

because of the oil. I want to assure everybody that dispersant is not going to be used in anything other than a carefully targeted way. We want to try to make sure that we check back with the fishing community, that we check with the fish and game and to do as little damage as possible. You can't use dispersant without doing damage to marine life. That's clear. But we want if possible to keep the oil off the beaches."

2155 SAT C-130 (originating in California) departed Phoenix (where crews and equipment had been assembled) for Anchorage with ADDS Pack.

SATURDAY, MARCH 25, 1989

0612 SAT C-130 (first spray plane) arrived Anchorage from Phoenix with spraying equipment. C-130 had two crews aboard so that one was rested and ready to start spraying missions upon arrival.

NOTE: 20,075 gallons (365 drums) of dispersants were available in Alaska.

Early PM NOAA surveillance flight verified that the leading edge of the oil spill had moved into Zone One.

1315 Iarossi reviewed with Lindblom (dispersants consultant) plans to use dispersants in Zone One.
-- Discussed Commander McCall's requirement for testing the effectiveness of dispersants in Zone One, and his need to review results before Exxon could use dispersants.
-- Exxon requested McCall view dispersant test using C-130 aircraft spraying dispersants in Zone One. Coordination meeting planned at Valdez airport.

1425 Loaded C-130 in Anchorage with dispersants.

1437 Conair DC-6 (second spray plane) arrived Anchorage and began process of clearing U.S. customs.

1508 SAT C-130 spray plane departed Anchorage for Valdez with dispersants. Plane was light loaded to permit subsequent takeoff from Valdez airport for dispersant test.

1551 SAT C-130 arrived Valdez from Anchorage. Iarossi, Lindblom, Emery (dispersants consultant), and Commander McCall held coordination meeting with aircraft and spotter crews.

1635 SAT C-130 departed Valdez for spray mission.

1658 Iarossi, Lindblom, Emery, and McCall departed in helicopter for test run. Departure delayed while Commander McCall got video camera from Marine Safety Office.

1658 Iarossi, Lindblom, Emery, and Commander McCall witnessed C-130 dispersant test (multiple passes using approximately 3,750 gallons (68 drums) of dispersants) in Zone One south/southwest of the grounding site. Commander McCall using video camera.
-- Iarossi, Lindblom, and Emery concluded that the test was successful. They noted much more light reflection off surface and higher surface agitation, indicating dispersants effectively interacting with spilled oil.
-- Commander McCall stated that he was unable to get good video due to poor light. Said he needed to have good video to show effectiveness to others. Said he needed to be convinced of effectiveness and to demonstrate it to others before he could approve the use of dispersants on the spill. Commander McCall said that further testing on Sunday would be required.

1745 SAT C-130 directed to load dispersants for Sunday morning tests. SAT C-130 loaded approximately 5,100 gallons (93 drums) of dispersants in Kenai and returned to Anchorage at 2144.

1800 During Valdez press conference, Lieutenant Wieliczkiewicz, Coast Guard spokesman, stated, "Exxon has been granted permission by the state and federal agencies to test effectiveness of chemical dispersants on the oil and in-place burning methods; however, Exxon will need additional Coast Guard and state approval before further use of either method."

1914 Conair DC-6 sprayed 500 gallons (9 drums) of dispersants. Spraying not ordered by Exxon. (Conair subsequently notified Commander McCall of the spraying mission.)

1950 Craig Rassinier (Exxon Shipping Company) and John Clough (Exxon Shipping Company Alaska legal counsel) met with Michelle Brown (Alaska Assistant Attorney General) and Larry Dietrick and Bill Lamoreaux (both ADEC) regarding spill cleanup plans and activities. Rassinier outlined cleanup, lightering activities, and equipment en route. Rassinier also gave a report of the successful dispersant test that afternoon. Dietrick stressed that the State had a strong preference for "aggressive mechanical efforts" and that "dispersants should only be used as a last resort."

2045 Successful burn test of an estimated 15,000 gallons of crude oil conducted near Goose Island.

2130 Iarossi met with Alaska Lieutenant Governor McAlpine and aides, Admiral Nelson, Commander McCall, and Kennedy (NOAA). One of the State's concerns was the impact of dispersants on the water column. Maki (Exxon Biomedical Sciences, Inc.) joined the meeting and gave the group a brief oral summary of some of the aquatic toxicology data for oil/dispersant combinations and underscored that the relative risks to aquatic life from the use of dispersants were minimal.

SUNDAY, MARCH 26, 1989

0925 Conair DC-6 left Anchorage for Valdez.

1127 Conair DC-6 left Valdez; spray mission conducted, used 2,500 gallons (45 drums) of dispersants. Spray equipment limited the effectiveness of the distribution of dispersants.

1400 Iarossi spoke to Stevens, Harrison, LeGrange (Exxon Company, U.S.A.) and Gillette and Weatherford (both Exxon Shipping Company) in Houston about the use of dispersants.
-- Iarossi reported that Exxon must have consent of Coast Guard. Apparently Coast Guard felt need for State's consent even though such consent was not required because the oil was in Zone One.
-- Iarossi stated that he was frustrated because dispersants use was being held up.

1411 SAT C-130 left Anchorage; spray mission conducted, used 5,100 gallons (93 drums) of dispersants.

1430 Lindblom, Emery, and Exxon contract video technician viewed test. No Coast Guard observer available. Dispersant test using SAT C-130 very successful showing same results as previous day verified by unmistakable dispersal of crude and clear video representation.

1500 Iarossi met with Admiral Nelson and Commander McCall at Marine Safety Office. Iarossi again requested permission to begin dispersants use. Admiral Nelson left the meeting to have an extensive telephone conversation with Governor Cowper. Iarossi continued discussion with other Coast Guard representatives.

1700 Coast Guard (Admiral Nelson, Commander McCall, and Commander Rome), Exxon (Iarossi, Rassinier, O'Brien, and Clough), and Alaska representatives (Kelso, Brown, Dietrick, Lamoreaux, and Lloyd (Governor's office)) met to discuss use of dispersants and overall cleanup coordination.
-- Admiral Nelson said he had just been on the telephone with Governor Cowper about dispersants and cleanup operations. The Admiral explained that a spill of this size dwarfed the ability of mechanical cleanup, noting that you could "skim forever, but not get rid of it."
-- Iarossi urgently pressed for immediate authorization to use dispersants. Iarossi noted that time was crucial and that the parties were "slowly being consumed with political issues versus spill issues" and that this was draining precious time and resources. Iarossi agreed with Admiral Nelson that the spill was too large for mechanical recovery efforts, and further noted that the failure to authorize dispersants was creating an enormous problem and that Exxon should be spraying dispersants right now.
-- Commander McCall, the OSC, said that he had no qualms regarding using dispersants in Zone One. He stressed the emergency and said that unless dispersants were used the oil

would end up "some place" eventually. He argued that major dispersant operations be commenced on the leading edge of the oil in Zone One.

-- Kelso said the State was not ready to sign off on open-ended use of dispersants.
  -- Instead, the State would consider appropriate applications on a case-by-case basis.
  -- State evaluating "trade off," looking at mix of environmental effects and impacts that would occur if dispersants were applied versus allowing the spill to be washed up on the shoreline and thereafter cleaned up with mechanical efforts.
-- The meeting continued with both Iarossi and the Coast Guard arguing for immediate use of dispersants in Zone One.
-- Commander McCall finally concluded that there was agreement to use dispersants in Zone One. ADEC representatives made no comment to the contrary.

1845 Meeting concluded. Exxon had received authority from Commander McCall to use dispersants in Zone One.

2230 Iarossi and Lindblom reviewed comprehens[illegible] plans to start full-scale use of dispersants at first light Monday morning.

MONDAY, MARCH 27, 1989

Early AM Sunday night and early Monday morning, gale force winds spread out the oil spill and blew most of it into Zone Three.

1015 First surveillance aircraft took off from Valdez airport.

1256 SAT C-130 attempted to leave Anchorage for spray mission, but was not given air traffic control clearance to take off.

1300 Admiral Nelson and Iarossi compared latest surveillance data showing the new location of the spill and scheduled helicopter overflight.

1415 Spraying equipment for a Mark Air C-130 (third spray plane) arrived in Anchorage from Phoenix.

1425 SAT C-130 left Anchorage; spray mission conducted with satisfactory results, used 5,250 gallons (95 drums) of dispersants on oil remaining in Zone One. C-130 returned to Kenai to reload dispersants.

1530 Iarossi and Nelson returned from two-hour surveillance overflight. Iarossi requested RRT to approve dispersants use in Zone Three in vicinity of Smith Island. Iarossi waited in Marine Safety Office until 1700 for reply.

1730 Exxon was notified of conditional approval of specific request. Exxon ordered SAT C-130 mission in Zone Three.
-- C-130 partially loaded with dispersants from Kenai flew to Anchorage to load additional dispersants, for a total of 5,010 gallons (91 drums).

1900 SAT C-130 left Anchorage; after arrival on site, the mission was aborted due to darkness.

NOTE: State subsequently withdrew approval for this mission.

TUESDAY, MARCH 28, 1989

1212 SAT C-130 left Anchorage loaded with dispersants.

1251 Mark Air C-130 left Anchorage loaded with dispersants.

At Commander McCall's direction, SAT C-130 and Mark Air C-130 sprayed near tanker to disperse oil released when boom broke during the storm. Approximately 7,181 gallons (131 drums) sprayed.

PM Afternoon aerial surveillance indicated heavy concentration of oil to the northeast and northwest of Knight Island that would probably move southward down both sides of Knight Island in Zone Three.

Burn test at Eleanor Island unsuccessful because of high water content in crude oil-water emulsion.

2100 Paul (Exxon Shipping Company) in meeting of Operations Coordination Committee (Exxon, Coast Guard, ADEC), requested emergency permission to use dispersants in Zone Three during next two days to prevent spill from moving southward. Exxon requested response by midnight so that operations could begin at first light Wednesday morning. Commander Rome replied that the request needed to be made in writing.

WEDNESDAY, MARCH 29, 1989

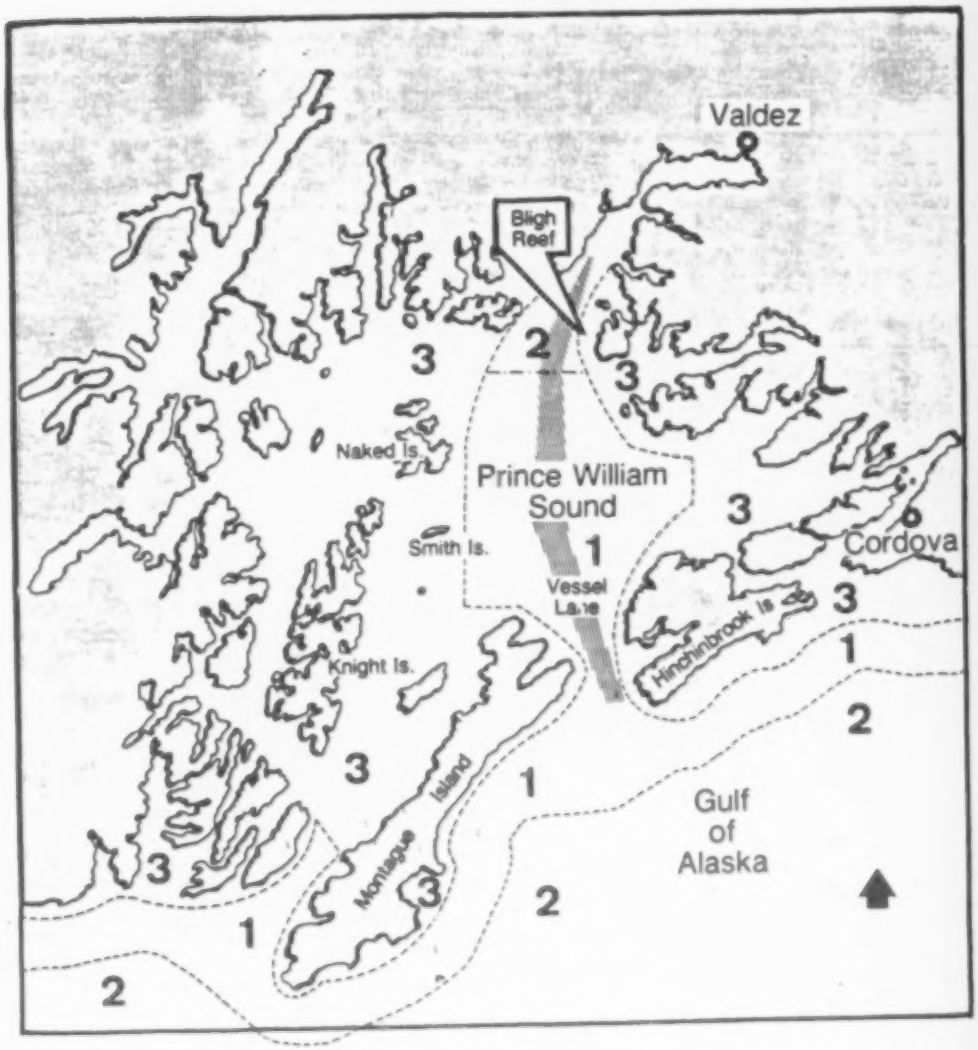
0900 Iarossi hand delivered written request to use dispersants in Zone Three to Commander McCall. Borgen gave copies to Lamoreaux (ADEC), Baker (Alaska Fish and Game), and EPA by fax.

1230 Iarossi learned that the RRT was not acting on the request. Exxon learned later that the State declined to approve the use of dispersants in Zone Three.

NOTE: Further attempts to burn crude oil-water emulsion were unsuccessful.

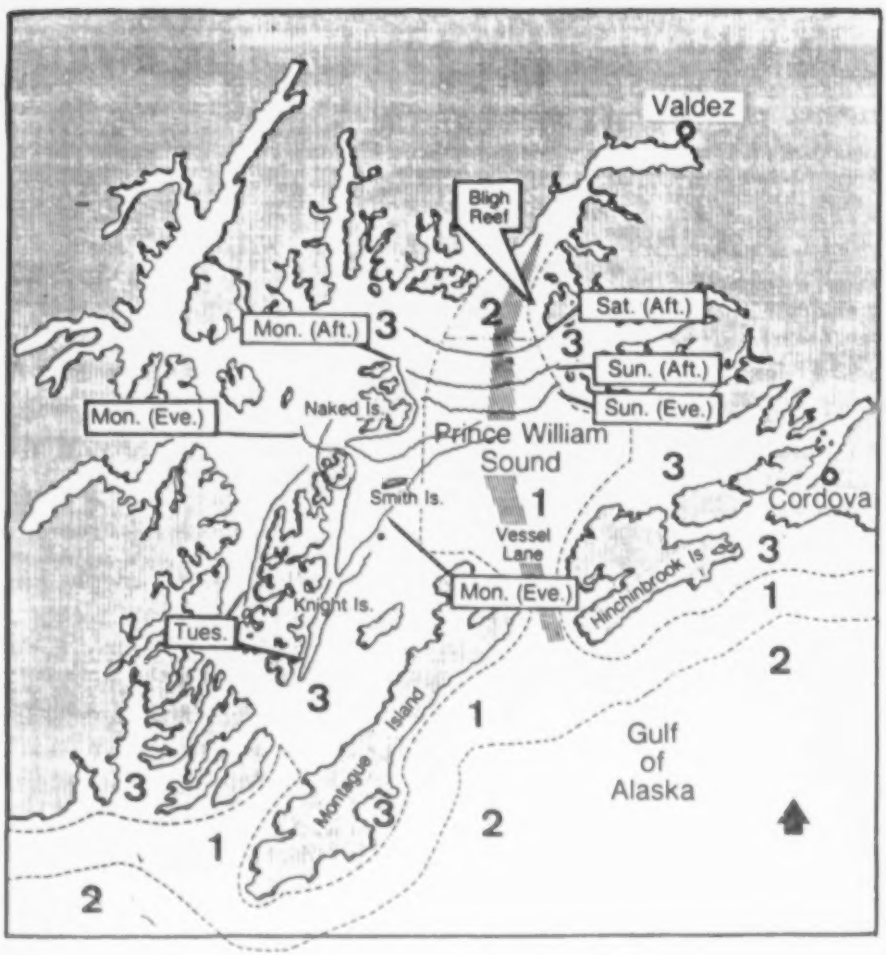
Map 1

ZONE DESIGNATIONS



Map 2

PROGRESSION OF SPILL LEADING EDGE
SAT. 3/25/89 - TUES. 3/28/89



Attachment 1

DISPERSANT AVAILABILITY AND EFFECTIVENESS

	Alaska Inventory (55-gallon drums)				
	Opening	Additions	Cum. Supplied	Cum. Sprayed	Remaining Inventory
Friday, March 24	365	--	365	--	--
Saturday, March 25	365	--	--	--	--
1635 C-130 test application	--	--	--	(68)	297
1914 DC-6 flight	--	--	--	(77)	288
2155 Receipt from Houston	--	88	453	--	376
Sunday, March 26	376	--	--	--	--
0954 Receipt from Houston	--	149	602	--	525
1127 DC-6 test application	--	--		(122)	480
1411 C-130 test application	--	--	--	(215)	387
1734 Receipt from California	--	150	752	--	537
1808 Receipt from Houston	--	172	924	--	709
Monday, March 27	709	303	1,227	(310)	917
Tuesday, March 28	917	847	2,074	(441)	1,633

If unconditional authority had been granted to use dispersants beginning with C-130 plane availability early Saturday, March 25, the day after the spill, seven C-130 flights could have been made on Saturday and Sunday, using 637 drums (35,000 gallons). As shown in the above table, as of 1734 on Sunday, Exxon had accumulated a total supply of 752 drums of COREXIT 9527 in Alaska. This would have left 115 drums to spare.

A second C-130 was equipped to spray on Monday. Had Exxon been allowed to use dispersants in Zone Three utilizing the two C-130s available, significant volumes of additional oil would have been dispersed and the effects of the spill significantly mitigated.

The volume of oil that can be dispersed with COREXIT 9527 depends on a number of factors including the type of crude oil being dispersed, the thickness of the oil slick, and how recently it was spilled. Laboratory and field tests have shown that Prudhoe Bay crude is among the most susceptible to the use of chemical dispersants and that dispersants are effective in the sea state conditions which prevailed on Saturday and Sunday. Given the favorable thickness and timing conditions which existed, particularly on Saturday and Sunday, large volumes of oil could have been dispersed.

ENVIRONMENTAL RESPONSE

(March 24 - May 20, 1989)

ENVIRONMENTAL RESPONSE
(March 24 - May 20, 1989)

INTRODUCTION

Exxon's Response Team dealt with a number of high-priority environmental concerns following the spill. These were to protect environmentally sensitive areas, to assess the biological and ecological impacts of the spill, and to protect wildlife to the extent possible. Dr. Alan Maki, an Exxon environmental scientist stationed in Anchorage, Alaska, was at the scene of the spill in the early morning of March 24, the day of the grounding. Since that time, Dr. Maki has been stationed in Valdez and, along with other Exxon and contracted scientists from environmental laboratories and academia, has been responsible for initiating and coordinating activities and studies responsive to the above-stated concerns.

While Exxon's current activities are heavily focused on short-term activities such as shoreline cleanup, the importance of longer term ecological consequences is fully recognized. A number of Exxon's studies are addressing long-term effects. While Prince William Sound has its own unique characteristics, a review of other large oil spills indicates that there is reason to be optimistic regarding the future outlook for the Sound. A review by Exxon Production Research Company of available evidence from other large, open-water oil spills indicates that although short-term local effects are observed, oil spills have not caused evident, irrevocable damage to marine resources on a broad oceanic scale, and local damage is transitory, with recovery time being dependent primarily upon the localized energy environment (primarily wind and wave action). Environmental and biological data taken from Prince William Sound since March 24 tends to support that these conclusions will also be applicable to the EXXON VALDEZ spill, but additional data collection and analysis will be required before any definitive assessment is possible.

The following discuss specific areas of environmental activity:

ENVIRONMENTAL STUDIES

Dr. Maki and his team of scientists have been coordinating efforts with the Alaska Department of Environmental Conservation (ADEC) in conducting water-column and sediment-sampling programs. ADEC has provided sampling assistance and observers on several of the sampling vessels. Strict adherence to chain-of-custody procedures is being followed as samples are transferred from field locations to laboratories. Environmental Protection Agency (EPA) and other standard protocols are being followed in the laboratory analysis of the samples. Additionally, a wide range of studies address biological effects. The

studies will also generate scientific data to assess potential damages to natural resources. Attachment 1 contains short summaries of the studies and indicates the dates they were initiated.

At the present time 14 Exxon-sponsored studies are underway or are planned for the near future. Seven of these studies address various aspects of the water and sediments and of shoreline and biological recovery in Prince William Sound, on the Kenai Peninsula, and the lower Cook Inlet. Two projects involve detailed toxicity testing using water and sediment samples collected in field surveys. Three scientific studies focus on commercial finfish and crustaceans, and additional studies address effects on kelp and eelgrass and possible effects on subsistence foods.

Water Column, Sediment, and Biological Studies

The primary objectives in the water column, sediment, and biological studies are to collect and analyze samples for petroleum hydrocarbon content. Work in Prince William Sound was initiated within two days of the spill and soon thereafter in the Kenai Peninsula area. In charge of these studies are several Exxon-contracted principal investigators, who are recognized experts in their fields:

- Dr. Jerry Neff, Director of Battelle Ocean Sciences Laboratory, senior author of several books on the effects of petroleum hydrocarbons on marine environments.

- Lisa Haas, M.S., Principal of American North, former Illinois EPA Superfund project manager, who has conducted marine and onshore spill damage assessments in Alaska.

- Dr. Pat Kinney, Principal of Kinnetics Laboratories and senior author of several publications on the biological effects of oil spills on marine fish and wildlife.

- Dr. Paul Boehm, Director of Arthur D. Little Oil and Chemistry Spill Assessment Unit.

- Dennis Lees, M.S., an experienced intertidal biologist with ERC Environmental & Energy Services Company and author of several publications on the intertidal biology of Prince William Sound.

On May 4, 1989, 320 tests on water samples collected at 32 sites were either complete or in progress. Through May 20, 1989, several water quality and sediment surveys had been completed in Prince William Sound and in the Kenai Peninsula areas. Additional surveys are to be conducted in late May and at varying intervals in future months.

Tests of water samples taken through May 4 indicate very little petroleum has entered the water column and that hydrocarbon concentrations are far below those known to be toxic to

fish. The most toxic components of crude oil, which include volatile aromatics such as benzene, in the samples had concentrations averaging less than 1 part per billion. The National Primary Drinking Water Standard is 5 parts per billion of benzene. Eighty-four tests on sediments, collected at 31 sites, were either complete or in progress.

Several biological sampling programs are underway to develop baseline information and recovery on such items as zooplankton, phytoplankton, and tidal and subtidal plant and animal fauna. Several field surveys have been completed, but no data is yet available on these programs. Additional surveys are planned for the summer of 1989 in both Prince William Sound and the Kenai Peninsula areas. Several of these programs will likely be extended into 1990.

Species Studies

Three studies are underway to determine the spill impact on certain commercial finfish and crustaceans. The effects on Pacific herring, pink salmon, crab, and shrimp are being investigated. These efforts are being directed by highly qualified specialists in their fields under contract to Exxon:

- Pacific Herring--Dr. Walter H. Pearson of Battelle Marine Sciences Laboratory, senior author of a major report on the effects of oil on spawning behavior and reproduction of Pacific herring.

- Pink Salmon--Dr. Douglas J. Martin of Pacific Environmental Technologies, Inc., a fisheries biologist with 16 years' experience in research and consulting in the Pacific Northwest and Alaska.

- Crustaceans--Dr. David A. Armstrong, Associate Professor at the University of Washington, who is a specialist in crustacean biology.

Work is underway on all three studies. Of nine oiled areas visited, five had herring spawn, and of eight unoiled areas surveyed, six had spawn. Herring hatching is being monitored both in the field and under laboratory controlled conditions. Some abnormalities have been observed, but all laboratory work is being done "blind" with respect to the sample origin so it is premature to draw any conclusions. In situ 14-day bioassays of pink salmon have been conducted in three locations. No salmon mortalities were observed during the study. Daily sampling for downstream migration of juvenile salmon is also underway. Other activities in progress or planned in these fish studies include analyses of tissue, water, and sediment hydrocarbon content; hydrocarbon analysis of herring eggs on kelp; determination of the condition of herring larvae; histopathological studies; and salmon studies of nearshore prey availability, habitat utilization, and escapement.

Crustacean fishery literature has been reviewed, a site visit conducted, and extensive discussion held with the Alaska Department of Fish and Game biologists to refine the crustacean study plan. The first sampling cruise is scheduled for the week of May 22. Sampling activities planned include plankton, crab/shrimp pot, trawl, and quadrat sampling of shrimp and crabs in oiled and unoiled areas.

Toxicity Tests

Toxicity tests are being performed on water and sediment samples obtained in Prince William Sound. These tests are being directed by Dr. William A. Stubblefield of ENSR Consulting, who is a toxicologist with experience in environmental risk assessment and oil pollution studies. Dr. Stubblefield is being assisted by three other environmental experts. Water and sediment samples have been obtained and sent for acute toxicity testing.

Springborn Life Sciences is conducting acute toxicity tests with mysid shrimp, short-term larval-growth toxicity tests with sheepshead minnows, and toxicity tests with the marine alga, Skeletonema. Data from tests completed to date indicate no toxicity associated with the water-column samples using these sensitive indicator species. Additional test series are planned for nearshore and offshore areas within Prince William Sound and offshore Kenai Peninsula.

Sediment toxicity testing is being conducted by EVS Consultants to determine the effects on benthic worm and oyster larvae. Results to date have shown expected adverse effects. For example, benthic worms did not survive when exposed to sediments from heavily oiled areas off Eleanor Island. Additional samples will be collected from oiled intertidal areas to further define toxicity profiles.

Other Studies

A study to compare the growth and productivity of kelp and eelgrass populations in oiled and unoiled areas of Prince William Sound is being conducted by a noted marine biologist, Dennis Lees of ERC Environmental & Energy Services Company, under contract to Exxon. Mr. Lees has over 15 years' experience working in this region of Alaska, and he is being assisted by Dr. Ronald Phillips, an eelgrass specialist from Seattle Pacific University. Initial sampling and measurements were taken a few weeks ago from oiled and unoiled areas, and plants have been tagged to enable growth measurement. Laboratory analyses of plant tissue chemistry, water quality, and sediment chemistry are planned.

A study is under consideration to determine the health risk to subsistence hunters and gatherers where food supply is based in oiled areas. This study is currently on hold pending

receipt of results of a joint Alaska Department of Fish and Game/U.S. Food and Drug Administration study on the same issue. Exxon has provided logistics support and sampling technology to assist the effort and help ensure accuracy of the field sampling.

PROTECTION AND REHABILITATION OF WILDLIFE AND FISHERIES

Marine Birds and Mammals

Effects on marine birds and vulnerable marine mammals during the crucial days immediately following the spill were expected to be severe. Attention was first focused on establishing facilities and providing qualified expertise for rescue and rehabilitation of marine birds and sea otters. Alice Berkner, Director of the International Bird Rescue Center, was asked to lead efforts to recover and rehabilitate oiled marine birds. Ms. Berkner is one of the pioneers in rehabilitation of oiled birds and has been involved in over 30 spills in North America. She arrived on site early on the day of the spill and established the first bird rescue operation in Valdez on Saturday, March 25, the day after the spill. That same day a crew was dispatched to Bligh Island to begin retrieval of oiled birds and other wildlife.

Dr. Randall Davis of Seaworld Research Institute in San Diego arrived in Valdez on Sunday, March 26, and began immediately to establish the sea mammal rescue operations which were to focus on sea otter rescue and rehabilitation. The bird center and the otter center initially shared space in Copper Basin Hall. Work began to assemble a fleet of boats and aircraft dedicated to retrieval of oiled birds and otters. This fleet was to grow to over 100 boats and 16 aircraft. Oiled live birds and otters began arriving at the centers on March 30. The U.S. Fish and Wildlife Service set up a refrigerated van in Valdez for receipt of dead wildlife. The removal of oiled carcasses, on which birds and animals might otherwise feed, was an additional wildlife protective measure.

Beginning on Sunday, April 2, the otter center was transferred to a newly constructed facility in a school gymnasium. The new Valdez center has a capacity of 96 sea otters and a veterinary/pathology department which includes many of North America's most well-known sea otter experts. Among them is Dr. R. V. Chalam who has, with his on-site colleagues, made remarkable progress in the development of otter treatment procedures at the center. Otters received at the center are first examined by veterinarians and, if found to have been in contact with oil, are then cleaned thoroughly, rinsed, and dried. They are transferred to a recovery room where they are monitored. During recuperation, the otters are fed fresh crab, shrimp, and fish. When they are judged healthy enough to enter

water, they are placed in special salt water holding pens prior to controlled release back to their natural habitat. New medical technology and techniques developed during operation of the center have even included work on treatments to restore natural fluids to the otters' fur.

Similar procedures have been developed and tested for bird treatment. Oiled birds are given careful initial washings with detergent and then bathed even more thoroughly a second time. The birds are fed a liquefied nutrient and, when sufficiently treated and recovered, are placed in specially-constructed pens for further rehabilitation before release.

On April 12, a second Exxon-funded bird center was established at Seward. A third bird center was opened at Kodiak on April 18 and a fourth at Homer on April 21. The second otter center was opened on May 5 at Seward and later expanded to capacity for 80-100 otters. Community groups in Homer, using Exxon funds, had begun to construct otter holding facilities in Jakalof Bay. On May 16 these facilities were made part of the operating plans for transfer of otters from Seward.

As of May 13, bird and otter treatment was:

	Received Live at Centers	Died at Centers	Transferred Live to Other Locations	Being Held Live
Birds	825	424	199	35
Otters	267	89	37	133

Dead birds and otters were also collected and delivered to refrigerated vans provided by the U.S. Fish and Wildlife Service. Total known dead as of May 13 was 12,575 birds and 585 otters. On May 15, seven rehabilitated otters, equipped with radio transmitters to monitor movements, were released.

Highest priority for shoreline cleanup was assigned to seal pupping areas in another important move to protect wildlife. Between April 18 and May 5, six oiled seal pups were received at the Valdez otter center. They were successfully cleaned and sent to Dr. Joyce Murphy at the Alpine Veterinary Clinic in Anchorage for additional treatment. The pups are now in Homer for long-term rehabilitation, estimated at two months.

As effects of the spill progressed from Prince William Sound to the Gulf of Alaska, mortality peaks of birds and otters moved from Valdez to Seward and then to Homer and Kodiak.

Nine live eagles had been received at the bird centers by May 22. Six were oiled and three suffered from non-spill-related injuries such as broken wings. One of the oiled eagles has died and seven were transferred to Anchorage for treatment. Special facilities are being built and experts retained for rehabilitation and care of eagles and other birds of prey which might be affected by the spill.

Prince William Sound is used as a staging and resting area for water birds and shore birds on their annual migrations to and from breeding grounds elsewhere in Alaska. Some stay for several weeks, but most stay in the area for a few hours to a few days. The winter bird population is relatively small. About 100 species of coastal birds are regularly observed in the Prince William Sound area. Approximately 135,000 birds nest in colonies in the Sound, 65% of them located in the eastern part of the Sound. Although no scientific counts are available, it is estimated that the number of migratory birds which use the Sound each year measures in the millions. Horns and other noise-making devices were used to keep migratory and local birds from landing or feeding in oiled areas.

Hatcheries and Fisheries

Actions to protect hatcheries and sensitive fisheries environments were initiated on March 25, the day after the spill, when Exxon representatives met with local fishermen and government officials to discuss areas requiring protection. It was not clear at this first meeting how the spill might move and which areas might be impacted. When the winds increased, it became apparent that areas east of the spill site were unlikely to be affected. At a March 27 joint meeting of the Steering and Operating Committees, priorities were set and a protection plan established. A third meeting was held with local fishermen and officials on March 28. Boom deployment at Sawmill Bay, Esther Bay, Eshamy Bay, and Main Bay began on that date. Boom deployment is described in the Section titled, "Buildup of Personnel and Equipment; Deployment of Booms and Skimmers; and Oil Recovered from the Water."

As of May 15, all of the hatchery protection efforts had succeeded. All booms remain in place and are carefully tended. Internal booms are free of oil and no oil has been detected in any of the hatcheries. Several releases of fry have taken place since the spill, with no observable adverse effects. Fry releases have taken place essentially in accordance with pre-spill schedules without modification. The study of pink salmon survival and habitat use, previously described, provides early evidence that juvenile salmon should not be adversely impacted.

Commercial herring fisheries in the Prince William Sound and Cook Inlet Management Areas were closed for the spring seasons. Other closures included shrimp, sablefish, Dungeness crab, other bottom fish and smelt, and miscellaneous shellfish in Prince William Sound; bottom fish, sablefish, and smelt in Cook Inlet; and shrimp in Outer Cook Inlet.

Salmon seasons are ordinarily set by emergency order of the Alaska Department of Fish & Game depending on availability of fish and nature of the catch. Decisions about openings in water near the path of the spill have not yet been made. The salmon

opening in the Copper River district on May 15 produced a catch of 45,000 red and king salmon, more than double the first-day harvest of last year. The catch was taken with a smaller fleet due to commitment of boats to spill cleanup. The salmon tested free of any oil contamination and were judged top quality by Japanese buyers. Although the Copper River district is part of the Prince William Sound Management Area, it was not in the path of the spilled oil. However, the successful opening of the salmon season is further indication that large areas in and near Prince William Sound remain unaffected by the spill. Halibut fisheries also opened on schedule beginning May 15. Catch was limited by bad weather. No evidence of oil contamination was found.

SHORELINE CLEANUP

On April 2, a shoreline cleanup priority committee was formed and on April 8 preliminary approval was obtained from the Coast Guard and eight other agencies for a shoreline cleanup strategy. An initial plan was presented by Exxon on April 14 and approved by the Coast Guard on April 17. A revised plan was submitted on May 1 incorporating new data on impacted shoreline. The May 1 plan calls for cleanup of 364 miles of shoreline. The Coast Guard reviewed the May 1 plan and requested several changes, which Exxon has made. This plan will continue to evolve with experience gained in the field. The estimates of impacted shoreline are based primarily on aerial surveys conducted by Exxon, the National Oceanic and Atmospheric Administration (NOAA), and ADEC, and will be updated as additional data, such as those from on-site shoreline assessments, become available.

Shoreline cleanup techniques should be selected to provide the best combination of effectiveness and environmental compatibility, and care must be taken to minimize adverse ecological impacts during cleanup. For example, in some locations natural processes which avoid the mechanical impact of human cleanup activities may be preferable even though some oil may remain in the environment while these processes work. Exxon's intent has been to proceed with shoreline cleanup as rapidly as possible in an environmentally acceptable manner. This involves careful evaluation of the trade-offs attendant to various cleanup techniques to ensure that minimum damage to sensitive environments results, as well as close monitoring of the environment while testing other methods, such as use of non-toxic chemical agents.

All cleanup activities involve close interfacing with numerous state and federal agencies, such as ADEC, the Alaska Department of Fish and Game, NOAA, the EPA, the Coast Guard, the U.S. Fish and Wildlife Service, and the Department of Agriculture Forest Service; native corporations; local governments; and other interested parties such as local commercial fishermen. The expertise of the environmental and other agencies, who are trustees for the public interest, has contributed to the cleanup plans that have been adopted.

NATURAL RESOURCE DAMAGE ASSESSMENT

On March 31, Exxon Shipping Company was contacted by NOAA with a request that Exxon provide $15 million to fund activities associated with a scientific natural resources damage assessment. Exxon committed to fund the assessment on that date, and the parties prepared a formal agreement. The trustees of the affected natural resources are the Departments of Interior, Commerce (NOAA), and Agriculture, and the State of Alaska. On April 13, Exxon Shipping Company executed a Memorandum of Agreement with the trustees whereby Exxon agreed to provide $15 million to fund activities the trustees will undertake in association with their assessment of costs for restoration, replacement, or loss of use of natural resources affected by oil released from the EXXON VALDEZ. Although there is no statutory requirement for up-front funding, this commitment is further evidence of Exxon's desire to support the study and to scientifically and objectively assess the effects of the spill. It is anticipated that it will take several years to complete the full assessment.

RESOURCES UTILIZED

Manpower and equipment buildup has been significant and rapid in support of the foregoing environmental efforts. As of May 13, 334 persons were working in support of these activities. Over 90% of these persons were on site by April 17. Attachment 2 is a graph showing personnel buildup and manpower devoted to various environmental activities. By April 4, 30 boats and 4 aircraft were involved in collection of wildlife which were brought to the Valdez bird and otter centers. This had grown to 109 boats and 14 aircraft by April 26, as operations were expanded to include Seward, Homer, and Kodiak. As activities in the Valdez area declined and the effects became less severe, the total number of boats and aircraft employed on May 16 was 102 and 6, respectively. In addition, 3-4 boats, on average, have been used to support the Exxon studies referred to above.

ATTACHMENT 1

Exxon Environmental Studies

Study 1. Water Quality Surveys of Hydrocarbon Distribution in Prince William Sound (initiated March 28, 1989)

The objective is to identify the horizontal and vertical distribution of hydrocarbons in the waters of Prince William Sound. The Alaska Department of Environmental Conservation (ADEC) approved the selected stations and assisted in sample collection for the first two cruises. In the first six weeks, samples are to be taken every two weeks from four different depths (surface, 1m, 3m, and 9m). Thereafter, monthly samples are obtained at two depths (surface and 3m). Each sample will be analyzed for volatile and semi-volatile organics, and total petroleum hydrocarbons using EPA approved methods.

Study 2. Sediment Distribution of Hydrocarbons in Prince William Sound (initiated March 30, 1989)

The objective is to identify the horizontal distribution of hydrocarbons in the sediments in Prince William Sound. Sediment samples will be collected from 19 stations in Prince William Sound representing key habitat areas both affected and unaffected by the oil spill. Several resource agencies assisted in selecting the sampling stations. Monthly samples are to be taken during the first three months followed by bimonthly sampling. Each sample will be analyzed for volatile and semi-volatile organics, and total petroleum hydrocarbons using EPA approved methods.

Study 3. Far Field Water Quality and Oil Weathering Studies (initiated April 12, 1989)

The major objectives of this study are:

- To determine the hydrocarbon concentrations of petroleum hydrocarbons and specific polycyclic aromatic hydrocarbons in the near-surface water column in association with surface oil,
- To continue to document changes in chemical characterization of sea-surface mousse, and
- To continue chemical characterization of spilled oil stranded on hard substrates (beach, nearshore sediment, and rocks).

Study 4. Shoreline Oil Weathering and Biological Recovery Study (initiated May 8, 1989)

The objective is to monitor the chemical, physical, and biological environmental recovery of oiled shorelines in Prince William Sound. Seven locations representing varied beach and shoreline types will be sampled in splash, intertidal, subtidal, and offshore zones. Substrate, biota tissue, and water samples will be collected monthly until October and thereafter every six months. Each sample will be analyzed for petroleum hydrocarbons and polycyclic aromatic hydrocarbons.

Study 5. Marine Biological Baseline Studies in Prince William Sound (initiated March 26, 1989)

The objective of this study is to obtain pre-oiled baseline and acute information in intertidal and subtidal habitats in Prince William Sound. Surveys will examine water, sediment, and tissue hydrocarbon content, phytoplankton, zooplankton, macroalgal growth, kelp, invertebrates, and nearshore demersal fishes. Surveys began March 28 and April 24.

Study 6. Kelp and Eelgrass Growth and Productivity Studies (initiated April 7, 1989)

The objective is to compare growth and productivity of kelp and eelgrass beds in oiled and unoiled areas of Prince William Sound. The study will be conducted at seven different locations and two different depths. Measurements include parameters important for plant growth (light, nutrients, temperature) as well as total petroleum and polyaromatic hydrocarbons in sediment, water, and plant tissue. The work will begin in spring/summer 1989.

Study 7. Intertidal Marine Biological Baseline Studies on the Kenai Peninsula and Lower Cook Inlet (initiated April 7, 1989)

The objective is to obtain pre-oiling baseline and acute information on the intertidal habitats in the Kenai Peninsula and lower Cook Inlet. The project will survey both rocky and soft-bottom areas at five different locations. Measurements include relative cover, density, size, reproductive condition, and growth of macroalgae, epifauna, and infauna. The initial field survey began April 20 with a follow-up survey scheduled during August 1989.

Study 8. Kenai Peninsula and Lower Cook Inlet Surveys of Petroleum Hydrocarbons in Water Sediment and Mussel Tissue (initiated April 12, 1989)

The objective is to identify the distribution of petroleum hydrocarbons and polycyclic aromatic hydrocarbons in the waters, sediment and biota in the Kenai Peninsula and lower

Cook Inlet. This includes analyzing the chemical characteristics of sea-surface mousse and shoreline substrates. Tissues from mussels, starfish, clams and demersal fish will also be analyzed. Sampling at five stations began April 20. Follow-up sampling will occur in August 1989.

Study 9. Pacific Herring Reproduction and Disease Effects (initiated April 10, 1989)

The objective is to examine the occurrence and extent of injury to the herring resource in Prince William Sound. Measured parameters include histopathology, hatching success of oiled and unoiled laboratory reared and field collected eggs, hydrocarbon concentrations in bile and roe, and a field survey of abundance and condition of larvae, juveniles, and post spawn adults. Samples will be collected beginning April 1989.

Study 10. Pink Salmon Survival and Habitat Effect (initiated April 14, 1989)

The objectives are as follows: 1) Assess the effects on egg-to-smolt survival; 2) Assess the effects of estuarine oil sampling on smolt-to-adult survival; 3) Evaluate the habitat quality and use of nearshore waters by juvenile salmon; 4) Evaluate the survivability and growth of juvenile pink salmon of hatchery and wild origin in oiled and unoiled bays; 5) Evaluate the habitat quality and use of offshore waters by juvenile salmon; and 6) Provide quantitative estimates of adult salmon escapement to index streams under investigation for the freshwater production program. Sampling locations include spawning streams, beaches, and open water areas. Daily sampling for downstream migrants began in April 1989 combined with twice weekly sampling at the mouth of the streams. A spawner survey will be done in the fall of 1989.

Study 11. Toxicity Tests with Water Column Species: Algae, Shrimp, and Fish (initiated April 3, 1989)

The objective is to conduct toxicity tests with samples of Prince William Sound water in accordance with current American Society for Testing Materials (ASTM) and EPA approved procedures. Thirty water quality stations were established in the sound. Samples of water are taken just below the surface, and at depths of 1m, 3m, and 9m. Dates for field sampling are once every two weeks for April-May 1989, and monthly thereafter. Test species for toxicity measurements are a marine algal species, Skeletonema, Mysid shrimp, and marine fish larvae.

Study 12. Sediment Toxicity Tests with Benthic Amphipod and Oyster Larvae (initiated April 3, 1989)

The objective is to conduct toxicity tests with sediment samples from Prince William Sound in accordance with current ASTM and EPA approved procedures. Eighteen sediment quality

stations were established in the sound. The stations are in medium depth nearshore areas and were chosen to provide sediment quality information near critical fish and wildlife areas. Dates for field sampling are once every two weeks for three sampling sessions during April-May 1989, and monthly thereafter. Test species are a marine amphipod, Rhepoxnius, and an oyster, Crassostrea.

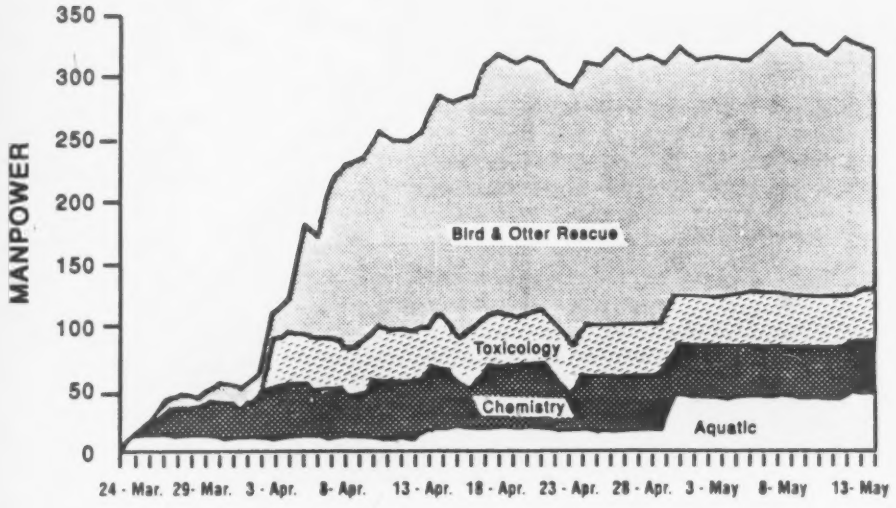
Study 13. Subsistence Use of Aquatic Resources Study (to be initiated)

The objective is to determine health risk to subsistence hunters and gatherers whose food supply is based in oiled areas. Food use patterns, species, and locations will be determined through interviews with local inhabitants. Samples will be collected after completion of interviews.

Study 14. Crustacean Fisheries' Effects (initiated May 16, 1989)

The objective is to examine the impact on crustacean fisheries. Activities planned include: 1) plankton sampling to determine relative density and larval stage composition; 2) crab/shrimp pot sampling to determine distribution of benthic juveniles and adults; 3) trawl sampling where possible for shrimp and crab; and 4) intertidal quadrat sampling to monitor recruitment, survival, and growth of post-larval king crab in oiled and unoiled areas.

ATTACHMENT 2
Manpower Buildup on Environmental Response Activities



Appendix A

NAMES REFERENCED IN CHRONOLOGY

NAME	AFFILIATION
Allen, Al	Spiltec (Oil Spill Burn Consultant)
Anderson, Jim	Three Way Charter Brokers
Arts, Bob	Alaska Maritime Agencies
Baker, Bruce	Alaska Fish and Game
Borden	United States Coast Guard Pacific Area Strike Team
Borgen, Harvey J.	Exxon Shipping Company West Coast Fleet Manager
Botto, Ray J.	Exxon Shipping Company Personnel Admin.
Brown, Michelle	Alaska Assistant Attorney General
Cirigliano, Tom J.	Exxon Company, U.S.A. Public Affairs Representative
Clough, John	Exxon Shipping Company--Alaska Legal Counsel
Companion, Michael P.	Exxon Chemical Americas
Cowper, Steve	Alaska Governor
Crawford, Tom	Clean Caribbean Cooperative Manager
Deppe, William J.	Exxon Shipping Company Ship Group Coordinator
Derryberry, Donald R.	Exxon Company, U.S.A. Information and Communication Systems
Dietrick, Larry	Alaska Dept. of Environmental Conservation
Duncan, William G.	Exxon Shipping Company Senior Marine Advisor
Elde, Kare	Pilot
Emery, Bruce	Dispersant Consultant with Conair
Falkenstein, Thomas G.	United States Coast Guard
Gale, Roger A.	B. P. Americas
Gillette, Thomas W.	Exxon Shipping Company External Affairs Consultant
Glock, Charles J.	Exxon Shipping Company Senior Transportation Allocator
Gorski, Gary S.	Exxon Shipping Company Tanker Section Supervisor
Harrison, C. Melvin	Exxon Company, U.S.A. Exec. Vice President
Hazelwood, Joseph J.	Exxon Shipping Company Master
Henman, Ivan	Alyeska Pipeline Service Company Vice President
Hughes, Patrick L.	Exxon Shipping Company Staff Administrative Analyst
Hurd, Jim	Pilot
Iarossi, Frank J.	Exxon Shipping Company President
Jefferies, Jim	Biegert Aviation President
Joselyn, Anthony "Tony"	Pilot
Kelso, Dennis	Alaska Dept. of Environmental Conservation
Kennedy, David	National Oceanographic and Atmospheric Admin.
Klepper, John C.	Exxon Shipping Company Transportation Coordinator

NAMES REFERENCED IN CHRONOLOGY

NAME	AFFILIATION
Lamoreaux, Bill H.	Alaska Dept. of Environmental Conservation
LeGrange, Ulyesse J.	Exxon Company, U.S.A. Senior Vice President
Lindblom, Gordon P.	Dispersant Consultant
Lloyd, Denby	Special Assistant to Alaska Governor
Maki, Alan W.	Exxon Biomedical Sciences, Inc.
Marston, Donald R.	Exxon Risk Management Services, Inc.
McAlpine, Steven	Alaska Lieutenant Governor
McCall, Steve	United States Coast Guard
McDonald, Edward J.	Exxon Shipping Company Ship Group Coordinator
McRobbie, Stuart W.	Exxon Shipping Company Ship Group Coordinator
Miller, Thelma J.	Exxon Shipping Company Secretary
Mortenson, Jack	Clean Bay, Inc. Manager
Murphy, W. E. "Ed"	Pilot
Myers, Paul B.	Exxon Shipping Company Ship Group Coordinator
Nelson, Edward	United States Coast Guard
Nelson, George	Alyeska Pipeline Service Company President
Nicholas, Robert H.	Exxon Shipping Company Counsel
O'Brien, James L.	O'Brien Oil Pollution Service (Oil Spill Consultant)
Paul, Dan	Exxon Shipping Company Human Resources Manager
Pyburn, Brent	OSR, Ltd. Service Centre Manager
Quinn, Michael C.	Exxon Company, U.S.A. Public Affairs Western Division Manager
Rassinier, Craig M.	Exxon Shipping Company Environmental Conservation Coordinator
Rome, Dennis D.	United States Coast Guard
Shier, Larry D.	Alyeska Pipeline Service Company
Silloway, Richard F.	Exxon Shipping Company Staff Business Analyst
Smith, Richard A.	Exxon Shipping Company Staff Engineer
Sowden, Arnie J.	Exxon Company, U.S.A. Accountant
Stalzer, Michael A.	Exxon Shipping Company Master
Stephens, Art J.	Exxon Company, International Transportation
Stevens, William D.	Exxon Company, U.S.A. President
Tompkins, John A.	Exxon Shipping Company Fleet Services Manager
Walding, Connie I.	Exxon Shipping Company Financial Analysis Coordinator
Warner, Darrell G.	Exxon Pipeline Company President
Weatherford, Robert M.	Exxon Shipping Company Business Analysis Manager
Wieliczkiewicz, Edward J.	United States Coast Guard

99-074 (296)